

Forest Management Agreements

**Third Five-Year
Review
1982 - 1987**

May 1988



**Ministry of
Natural
Resources**

**Vincent G. Kerrio
Minister**

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INTRODUCTION

Forest Management Agreements (FMAs) came into being in Ontario through an amendment to the Crown Timber Act in 1979. The Act as amended provided that the Minister of Natural Resources, subject to the approval of the Lieutenant-Governor-in-Council, could enter into Forest Management Agreements with private sector companies.

The FMAs, which cover a specific section of Crown land, replace existing licensing arrangements with an Agreement which requires the companies to manage the forests in the FMA area on a sustained-yield basis. In addition to harvesting, the FMA holder is responsible for all planning, regeneration and other silvicultural activities necessary for proper forest management, including the construction of access roads.

The Ministry of Natural Resources provides certain funding, and must approve the required management documents submitted by the companies. The Agreements are for 20 years, but Section 15 provides that every five years, the Minister must evaluate how the company has carried out its obligations under the Agreement and the associated management documents. If satisfactory, the FMA is renewed for another five years. This is called an "evergreen" arrangement.

In 1985, the Minister released the first five-year reviews of the first five FMAs in the province. A report on the relationship between harvest and growth, including regeneration, of timber for the five FMA areas was tabled in the Ontario Legislature, as required by legislation. All five FMAs were renewed for another five-year term.

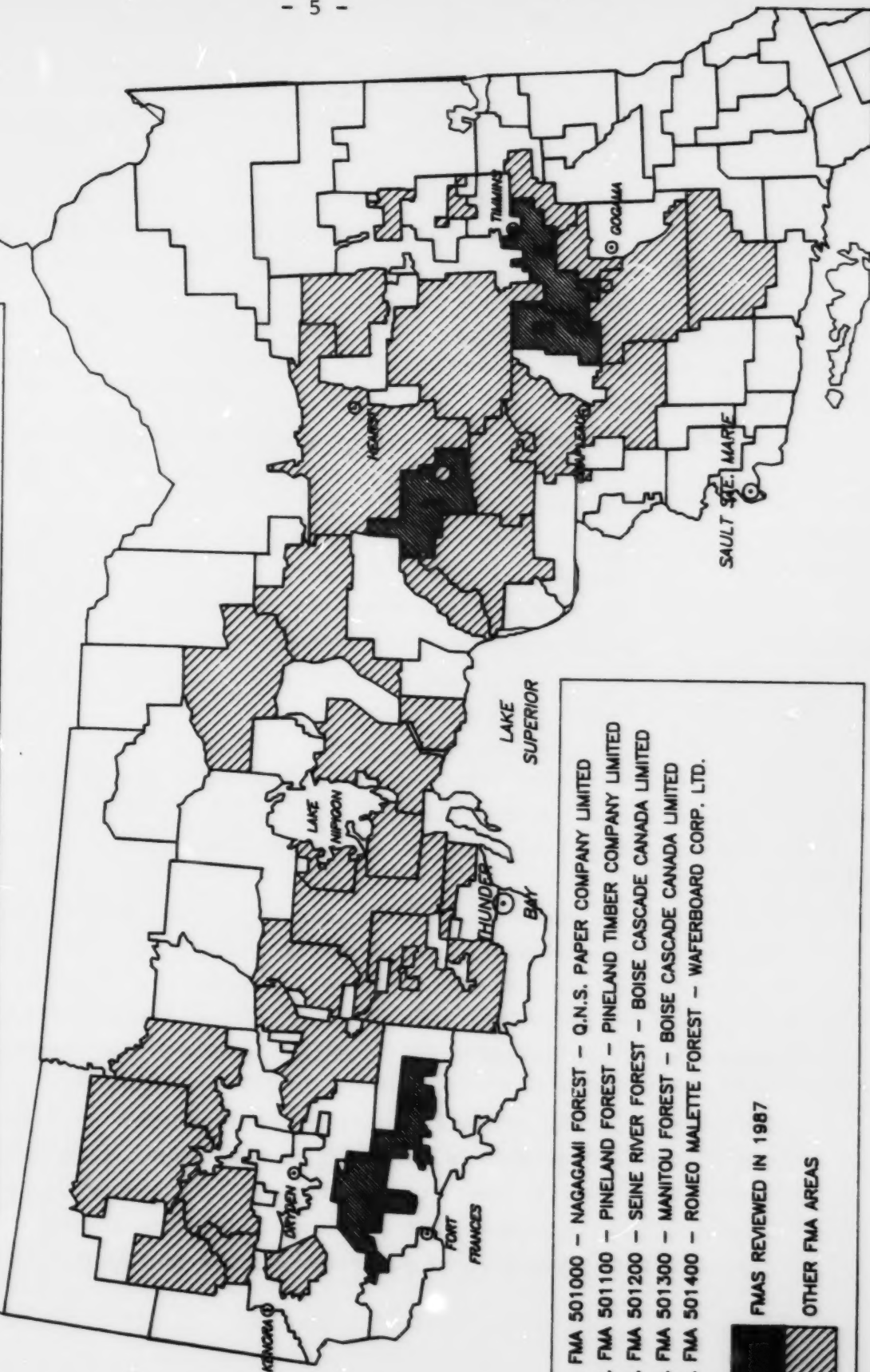
In 1986, the Minister released the second five-year review. A report on the relationship between harvest and growth, including regeneration, was tabled in the Ontario Legislature, as required by legislation. The Abitibi-Price Inc. Spruce River Forest FMA and the Domtar Forest Products Lake Nipigon Forest FMA were extended for another five-year term. The Great West Timber Black River Forest FMA was not initially extended but has since been extended for another five-year term.

As of January 1988, there were 30 FMAs in the province, covering a total of 177,821 square kilometres. This is 69 per cent of the 257,244 square kilometres of licensed forest in the province. The location of these Agreements is shown on the following page.

In 1987, the five-year reviews on five more FMAs were conducted and are the subject of this report. The Agreements are:

1. Quebec and Ontario Paper Company Limited, Nagagami Forest
- FMA 501000
2. Pineland Timber Company Limited, Pineland Forest
- FMA 501100
3. Boise Cascade Canada Limited, Seine River Forest
- FMA 501200
4. Boise Cascade Canada Limited, Manitou Forest
- FMA 501300
5. Waferboard Corporation Limited, Romeo Malette Forest
- FMA 501400

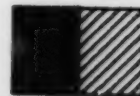
FOREST MANAGEMENT AGREEMENTS 1987 FIVE YEAR REVIEW



1. FMA 501000 - NAGAGAMI FOREST - Q.N.S. PAPER COMPANY LIMITED
2. FMA 501100 - PINELAND FOREST - PINELAND TIMBER COMPANY LIMITED
3. FMA 501200 - SEINE RIVER FOREST - BOISE CASCADE CANADA LIMITED
4. FMA 501300 - MANITOU FOREST - BOISE CASCADE CANADA LIMITED
5. FMA 501400 - ROMEO MALETTE FOREST - WAFERBOARD CORP. LTD.

FMA'S REVIEWED IN 1987

OTHER FMA AREAS



This report summarizes the various forest operations carried out by the five companies and presents the recommendations of the committee which conducted the reviews. The role of the review committee was to assess the commitment of the companies to their obligations as identified in the Agreements.

The obligations are:

- a) Submission dates for management and operating plans, annual work schedules and reports are to be established and met;
- b) harvest: may not exceed the Maximum Allowable Depletion (the annual allowable cut) and companies may be liable for damages following the fifth year if their planned requirements are not harvested;
- c) obligations for treatment of Not Satisfactorily Regenerated (NSR) lands are to be met;
- d) compliance with ground rules which indicate the silvicultural treatments on a site-specific basis;
- e) road construction;
- f) compliance with other forest users.

The review committee was comprised of three members engaged by the Ministry of Natural Resources for the purpose of conducting the five reviews. The committee assessed the commitment of the Companies to their FMA obligations, reviewed written records and conducted field inspections to assess company performance.

Activities on the FMA areas during the five-year periods prior to and after the agreements were signed are compared in Table 1. It shows that while the actual harvest increased 10 per cent, regeneration increased 132 per cent, tending increased 173 per cent and site preparation increased by 194 per cent.

TABLE 1

Relationship between harvest and silviculture activities on FMAs 500100 through 501400, for a five-year period before and after entering into Agreements.

Activity	By Ministry Before FMA	By Companies and Ministry during FMA	Percentage Change
(Hectares)			
Harvest	51,896	56,994	10
Regeneration	16,920	39,249	132
Tending	4,728	12,921	173
Site Preparation	14,241	41,803	194

The Agreements have a requirement for the companies to treat Not Satisfactorily Regenerated (NSR) lands which existed at the signing of the FMA. In four instances, the obligations were substantially exceeded (Table 2). In the fifth case, the Pineland Forest, 97 per cent of the NSR treatment obligation was fulfilled.

TABLE 2

Not Satisfactorily Regenerated (NSR) obligations and treatment for three FMA areas for 1981-86.

Company and Forest Name	NSR Obligation to Date (Hectares)	NSR Treated to date
Ontario Paper Company Ltd. Nagagami Forest FMA 501000	371	2,546
Pineland Timber Company Ltd. Pineland Forest FMA 501100	1,939	1,887
Boise Cascade Canada Ltd. Seine River Forest FMA 501200	440	1,667
Boise Cascade Canada Ltd. Manitou Forest FMA 501300	589	5,869
Waferboard Corporation Ltd. Romeo Malette Forest FMA 501400	145	1,491

The committee also reviewed company concerns about the FMA arrangements and made a number of recommendations to address issues specific to each FMA.

In all five cases, the review committee recommended that the Agreements be extended for another five-year term.

Five-Year Review

**Quebec and Ontario Paper
Company Limited
(formerly Q.N.S. Paper
Company Limited,
Ontario Paper Company Division)**

**Nagagami Forest
Agreement 501000
1982-1987**

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1. INTRODUCTION

1.1 PURPOSE OF THE REVIEW

The Minister of Natural Resources and Q.N.S. Paper Company Limited, Ontario Paper Company Division (now known as the Quebec and Ontario Paper Company) signed a Forest Management Agreement (FMA) on the Nagagami Forest near Hornepayne on March 14th, 1983. The purpose of that agreement was to provide for a continuous supply of forest products to the Company's mill at Thorold and to ensure that the forests of Nagagami are harvested and regenerated to produce successive crops of timber on a sustained yield basis.

This fifth-year review was conducted on the Nagagami Forest to determine whether the obligations of the Company under the agreement have been satisfactorily performed and to recommend to the Minister of Natural Resources whether the remaining period of the agreement should be extended by a further term of five years.

1.2 THE REVIEW COMMITTEE

The review was carried out by a committee of three, engaged by the Ministry of Natural Resources for this purpose. The three committee members were:

- Mr. G. W. Bell, R.P.F., Vice-President Woodlands (Retired),
Spruce Falls Power and Paper Company Ltd.,
Committee Chairman,
- Mr. R. A. Baxter, Director of Operations, Northern Ontario,
Ministry of Natural Resources (Retired), and
- Dr. H. G. Cumming, Professor, Fish and Wildlife Management, School of Forestry, Lakehead University.

1.3 TASKS OF THE REVIEW COMMITTEE

The review committee's assignment was to undertake a fair and objective review of Ontario Paper Company's performance on the Nagagami Forest during its first five-year term vis-a-vis its obligations under the forest management agreement and to make recommendations to the Minister of Natural Resources on the extension of the agreement's term according to the "Evergreen" section of the agreement.

The review was conducted by:

- examining the management plans, operating and annual plans and the annual reports prepared by the Company with regard to their submission dates and their acceptability to the Ministry,
- inspecting the depletion records, silvicultural records and access road maps for adequacy and for conformity with the management plans and the ground rules,
- comparing the levels of harvest and treatment of not satisfactorily regenerated (N.S.R.) lands in the annual reports with those required by provisions of the agreement,
- selecting and field inspecting harvest cuts and silvicultural projects typical of the techniques employed on the forest for conformity with the agreement holder's records and for field application of the ground rules,
- determining the degree to which other forest users and other forest values are accommodated in management planning and in field operations, and

- . meeting with Company and Ministry district staff to identify problem areas and agreement concerns on the part of either party.

2. PROCEDURES AND FINDINGS

2.1 MANAGEMENT PLANNING

2.1.1 THE PREPARATION OF PLANS

Paragraphs 6(1), 10(1), 11(1) and 15(1) of the agreement require the Company to prepare management and operating plans and a series of annual plans. These plans must be prepared according to the timeframes specified in the agreement and according to the manual that has been approved by the Minister for this purpose.

The forest management agreement was signed on March 14th, 1983 and the management plan was due twelve months later. Extensions to this date were granted by the Ministry until August 31st, 1984 in order to resolve forestry-tourism conflicts that existed on the Nagagami Forest. The final plan was submitted by the Company on the agreed-to date and was found to be acceptable to the Ministry.

The operating plan for the 1982 to 1987 period was due September 23rd, 1983 but was not submitted until December 1983. The delay was again due to the need to resolve forestry-tourism conflicts.

The annual plans for the first year of the period under review were prepared under Crown Timber licences 384200 B & C and 288404. The 1983-84 annual plan was submitted on March 11th, 1983. The 1984-85 annual plan was submitted November 21st, 1983. The annual plans for the fourth and fifth years were submitted prior to the due dates.

The Company has prepared a management plan for the second five-year term in accordance with the new and more complex Timber Management Planning Manual for Crown Lands in Ontario. This new plan was submitted by the due date and approved by the Ministry on March 19th 1987.

In conclusion, the Company was found to have been late in meeting its management planning obligations during the initial years but did so with the concurrence of the Ministry. By the fourth year of the term all plans were being submitted on time.

2.1.2 PLAN IMPLEMENTATION

The agreement requires that the Company conduct its operations in accordance with the approved management, operating and annual plans. The accomplishments of the Company in silviculture and road construction are summarized in Table 1.

The review committee examined the harvest cut and road construction records of the Company and found them to be generally in conformity with the areas allocated for harvest and the road locations specified in the management documents. The only deviations detected were considered to be of a minor and inconsequential nature. The levels of harvest, silvicultural activity and access construction during the five years were lower than those specified in the plans, as portrayed in Figure 1.

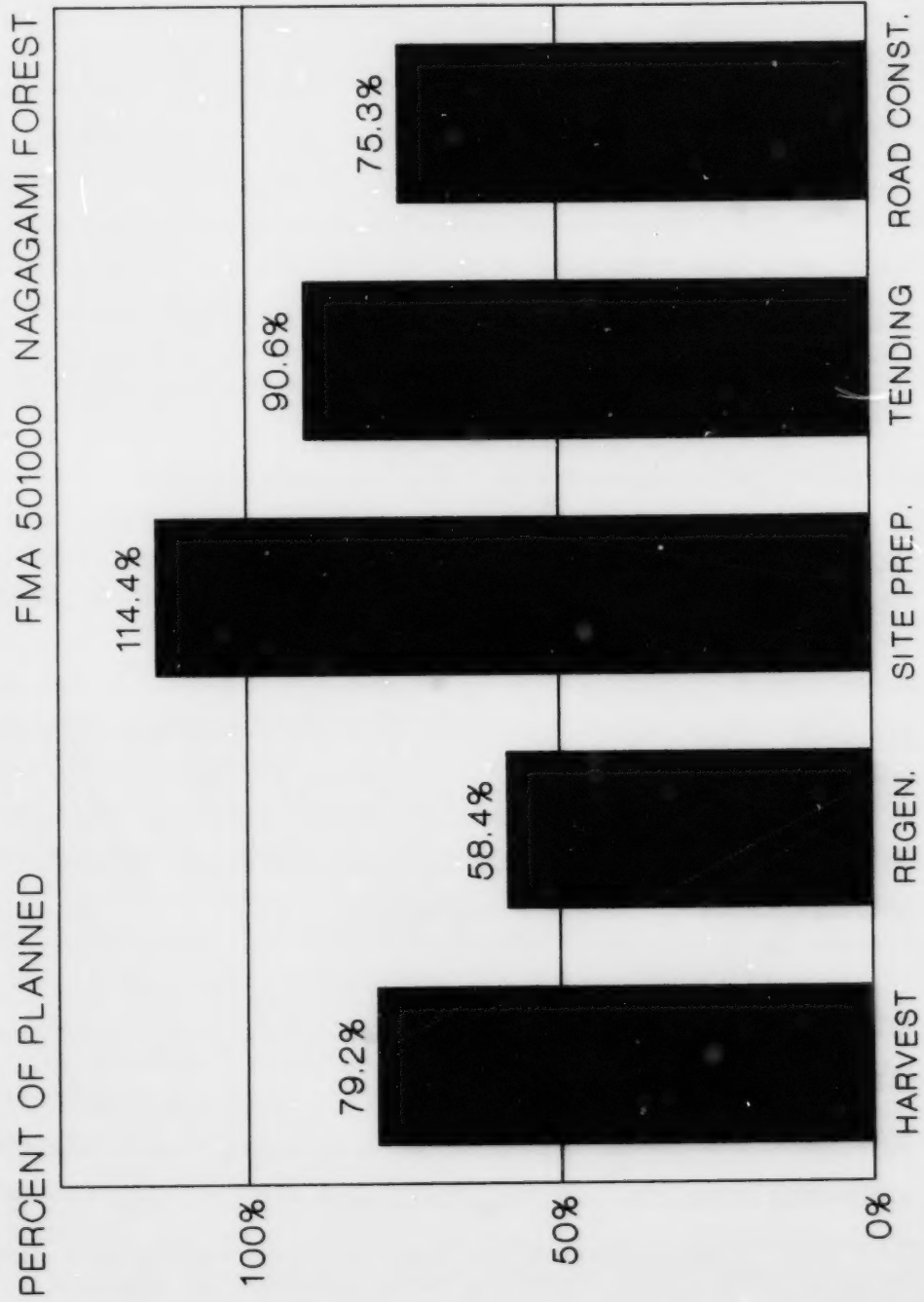
Reasons for the low level of harvest are provided in Section 2.3 and for road construction in Section 2.5 of this report. Silvicultural levels were down from those planned due to the reduced level of harvest and therefore the availability of sites for treatment.

TABLE 1
Summary of the Company's forest operations at Ministry expense
for 1982-87.

FMA EXPENDITURE AND ACCOMPLISHMENT REPORT FOR THE FIVE YEAR TERM 1982-87		FMA 501000 NAGAGAMI FOREST ONTARIO PAPER COMPANY
ACTIVITY	HECTARES	DOLLARS
HARVEST CUT	13,315	
NATURAL REGENERATION	832	
ARTIFICIAL REGENERATION		
PLANTING BAREROOT	2,003	
PLANTING CONTAINER	984	
SEEDING DIRECT	3	
SEEDING WITH SITE PREP	9	
TOTAL ARTIFICIAL	2,999	
TOTAL REGENERATION	3,831	
TENDING		
CHEMICAL CLEANING/AERIAL	2,734	
CHEMICAL CLEANING/GROUND	0	
OTHER TENDING	0	
TOTAL TENDING	2,734	
SITE PREPARATION		
MECHANICAL	5,783	
CHEMICAL	431	
PRESCRIBED BURN	0	
TOTAL SITE PREPARATION	6,214	
MNR SILVICULTURE PAYMENTS		2,394,542
ROAD CONSTRUCTION	KILOMETRES	DOLLARS
PRIMARY	162.3	
SECONDARY	140.7	
TOTAL CONSTRUCTION	303.0	7,800,002
ROAD MAINTENANCE	660.8	291,012
MNR TOTAL ROAD PAYMENTS		8,091,014
TOTAL PAYMENTS		10,485,556

N.B. This table represents activities carried out by the Company, and the associated costs to MNR. As part of the MNR obligation under the Agreement, Forest Management Activities were also conducted by MNR, at additional expense.

FIGURE 1: COMPARISON OF OPERATING PLAN vs ACTUAL



2.2 THE GROUND RULES

2.2.1 KNOWLEDGE AND FAMILIARITY WITH THE GROUND RULES AND THE AGREEMENT

Based on the discussions held with Company, both in the office and field, it was apparent to the review committee that the Company staff were knowledgeable and familiar with the provisions of the ground rules and the agreement.

2.2.2 CONFORMITY OF HARVEST AND SILVICULTURE OPERATIONS WITH THE GROUND RULES

The committee's examination of silvicultural records, its field inspections and its discussions with the designated Crown representative (D.C.R.) all confirmed that harvesting and silvicultural operations have been conducted in accordance with the ground rules. The ground rules do provide for deviations from the silvicultural techniques laid out in Table 1 of the ground rules, and several innovations to convert N.S.R. lands on prime sites to spruce were implemented on the Nagagami Forest. These techniques were proposed by the Company in its annual plans and approved by the Ministry prior to implementation.

The committee notes that the ground rules permit the classification of non-treatable sites by mutual agreement. Any area may be classed as non-treatable where extremes in topography, shallowness of soil, excessive rock, poor drainage or inaccessibility make it uneconomic or impractical to treat. Non-treatable areas were to be identified in the annual plan, prior to harvest if possible, and included as depletions in the annual report following harvest. To-date no areas have been classed as non-treatable on the Nagagami Forest despite the fact that over 13,315 hectares (ha) have been harvested.

The review committee is concerned that non-treatable areas may have been overlooked by both parties and that a failure to classify them will result in disputed retreatment obligations.

RECOMMENDATION: That the Company and the Ministry jointly review the treatable status of lands cutover during this five-year term for which Table 1 of the ground rules specifies treatment but which have received no treatment or plans for treatment, and that the Company report any areas mutually agreed to be non-treatable in the 1988-89 annual report.

2.2.3 CONFORMITY OF INVOICING PRACTICES WITH THE GROUND RULES

The invoicing procedures of the Company were found to be in conformity with those specified in the ground rules. Clarification of invoices was requested by the Ministry in some cases, but apparent problems were quickly resolved.

2.2.4 THE PREPARATION OF NEW GROUND RULES

The forest management agreement with the Company calls upon both parties to commence the preparation of new ground rules for the next five-year term at least eight months prior to the expiry of the old ground rules, and to agree upon those new ground rules on or before that expiry date. The committee notes that this obligation has been met and that new ground rules were agreed to prior to April 1st, 1987.

2.3 HARVEST LEVELS AND ALLOWABLE CUT

According to paragraph 20(1) of the agreement, the Company has agreed to maintain its harvest on the Nagagami Forest at a level between 90% and 110% of the calculated allowable cut for each working group. The Company may request the Minister to authorize variations, to those levels specified in the agreement.

Paragraphs 20(3) and 20(4) of the agreement provide for either a remedy or liquidated damages in the event of an overcut or undercut, respectively, on the area under agreement. The agreement holder may avoid liquidated damages through the declaration of timber surplus to his needs in an approved management plan; however, liquidated damages do not apply in the first five-year term of a forest management agreement.

The Company met its 90% harvest requirement only in the spruce working group; spruce was required to replace the 40% reduction in poplar furnish in order that the Company could meet the market demands for higher quality paper. Harvest obligations were not met in all other working groups. No additional surplus declarations were requested by the Company despite the fact that the level of undercut was apparent by the third year. Figure 2 shows a comparison of the actual cut for the five-year term with the allowable cut for all working groups combined.

There were several valid reasons for the company's failure to utilize its planned level of harvest. The Olav Haavaldsrud Timber Company sawmill at Becker which is supplied by the Company's Nagagami operation burned down in 1982 and was not back in production until 1985. The Ontario Paper Company mill modernization had start-up difficulties and eventually switched to a higher-than-forecast blend of waste newsprint. Both events reduced the Company's demand for wood from the Nagagami forest.

The management plan for the period 1987 to 1992 identified timber surplus for the second five-year term, and the Minister has pursued his prerogative to licence that surplus, to Dubreuil Brothers Limited.

RECOMMENDATION: That in the event the Company should forecast harvest levels during the second five-year term to fall below the 90% level of those stated in the current plan, the Company should take immediate action to request, with reasonable explanation, an undercut variation from the Minister and to amend its management plan with a further surplus declaration.

2.4 N.S.R. OBLIGATIONS

Under provisions of the agreement, the Company has an obligation to reforest N.S.R. lands, at the rate of 5% of class 2 and 3 N.S.R. lands annually. This amounts to a total of 371 hectares for the five-year term under review and 1,485 hectares for the entire 20-year period of the agreement.

The Company, on its own initiative, elected to accelerate the rate of N.S.R. treatment and has to-date reforested 2,546 hectares as shown in figure 3.

FIGURE 2: COMPARISON OF ALLOWABLE CUT, ALLOCATION, AND HARVEST

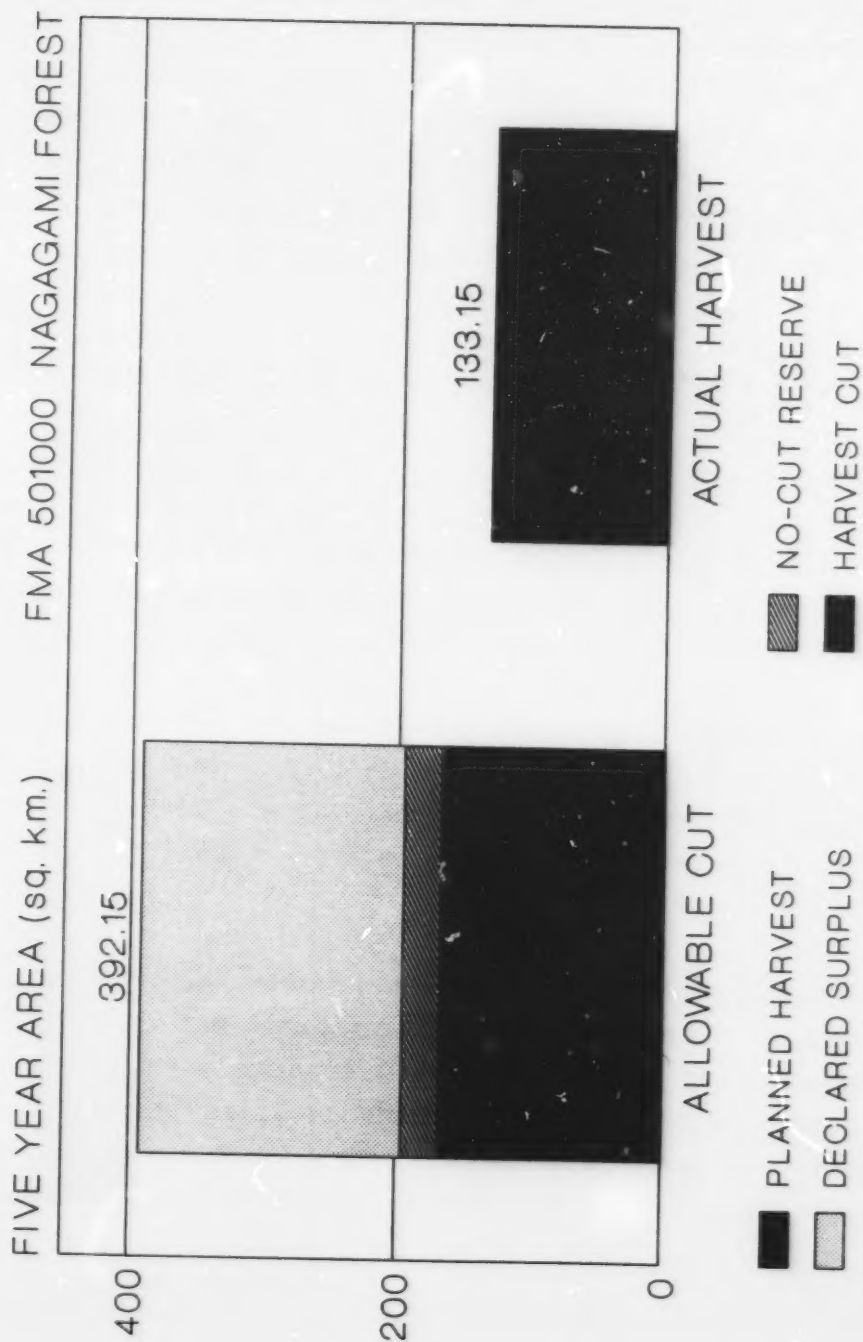
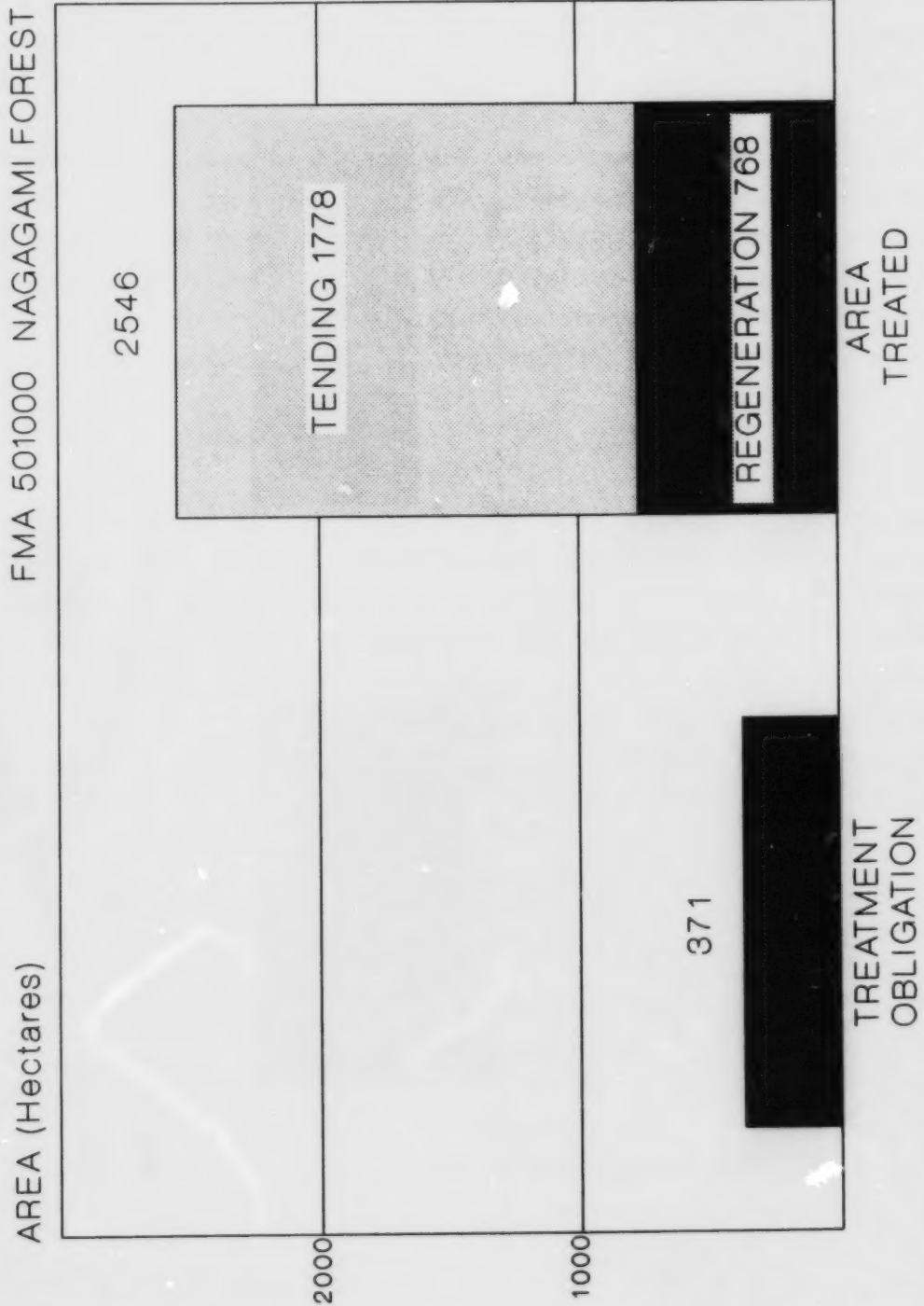


**FIGURE 3: COMPARISON OF NSR TREATMENT OBLIGATION
AND NSR TREATMENT, 1982-87**



This level of achievement results in part from the crediting of the treatment of other unregenerated backlog not included in the original N.S.R. survey. The Company is to be commended for the initiative it has shown in putting N.S.R. lands back into production.

RECOMMENDATION: That the Minister acknowledge the fulfilment of the Company's N.S.R. treatment obligations for the entire period of the 20-year agreement.

2.5 ROAD CONSTRUCTION

Paragraph 27 of the agreement provides for the Minister to pay for the construction or reconstruction of forest access roads on the agreement area. To be eligible for payment, roads must be detailed in an approved annual plan and constructed according to the standards specified in Schedule "E" of the agreement.

On the Nagagami Forest, roads are inspected jointly by a Ministry representative and a Company representative prior to acceptance for final payment. In no case during the period under review has a road been judged to be sub-standard according to those standards.

Figure 1 shows a reduction from the level of planned road construction to the level of actual construction during the term under review. Two reasons were offered for the shortfall: the level of harvest was lower than that planned (see explanations of Section 2.3 of this report), and the level of MNR funding allotment for road construction was lower than that requested.

2.6 COMPANY RECORDS

The committee found the Company's records to be excellent. Detailed information is readily available from their extensive

computer and map records. Silviculture, harvest cut and depletion record forms are completed and the information is then entered into computers. Detailed information is kept in excess of that required by the Ministry. Records for individual projects were followed from the original plan to the field to the final invoicing, and no problems were encountered.

The data for silviculture projects carried out by the Ministry of Natural Resources during the phase-in period had not, at the time of the review, been entered into the Company's computer records but the review committee was advised that this is about to be done.

2.7 ANNUAL REPORTS

Paragraph 38 of the agreement require the agreement holder to prepare an annual report in accordance with the Forest Management Manual in respect of the operations conducted on the agreement area in the year preceding.

The committee found the company had submitted an annual report by the submission date in accordance with the manual in each year of the agreement. These reports were reviewed by the D.C.R. of the day; in two cases the Company was asked to make minor corrections to its report and did so.

The Company and the D.C.R. have since found errors in those reports in the classification of treated areas as "N.S.R." or "recent cut". The Company is now in the process of transferring its silvicultural records to electronic format and correcting these errors.

2.8 INTEGRATION WITH OTHER FOREST USERS

Section 9 of the ground rules entitled Modified Management Areas, details how other forest users were to be identified and accommodated during the first five-year term. It was the responsibility of the Ministry to identify these areas and make prescriptions to accommodate other forest users. The Company was to implement the Ministry's prescriptions, so as to protect those other forest values. The committee found that in general the Company has met these requirements.

The Company raised objections to a few directives that it considered unreasonable, but it also participated actively in finding solutions.

A major constraint in the agreement area is the presence of 23 registered tourist operators with 13 fly-in lodges, and 17 outpost camps. These tourism establishments depend on remote fly-in opportunities, and this poses a problem for forest accessing. The location and construction of forest access roads in proximity to these recreational areas constitute major issues of contention from time to time between the Company and the local tourism industry. The company has shown a sensitivity to this problem by willingly meeting with the tourist operators over tourism issues. As well, the Company has followed directives imposed by the Ministry.

A major tourism/access concern exists in the Obakamiga Lake area. A moratorium on accessing this area was imposed by the Ministry initially for a 5-year period, now extended to 10 years. The moratorium area represents approximately 13,800 ha of mature and overmature forest. Because this area is contributing to the allowable cut of the Nagagami Forest but has not been made available for harvesting, a resolution of the problem is required.

RECOMMENDATION: That the Ministry come to a final decision on an access plan for the Obakamiga Lake moratorium area, and that any major area of productive forest land rendered permanently unavailable for harvest by that plan be removed from the landbase contributing to the allowable cut. A permanent decision is required prior to the commencement of the preparation of the next management plan (1992-2012).

Generally, fish and wildlife interests have been well accommodated by forest operations. For instance, a heronry was identified and preserved during harvesting operations. The Chelsea Hill moose wintering area, identified by the Ministry, was harvested using special prescriptions. Roads for the most part have been located well back from major waterbodies.

Bridge construction and installation of culverts have been generally well handled but at three of the inspected sites bank stabilization could be improved.

Mining activities, in particular staking, have imposed some complications for forestry operations in the Oba area because the Mining Act states that claim posts must not be disturbed. There is a need for the Company, Ministry and mining companies to continually communicate in order that the impacts be minimized.

3. MAINTENANCE OF PRODUCTIVITY

Table 2 shows the maximum allowable depletion (allowable cut) which was calculated for the Nagagami Forest at the beginning of the five-year term under review. It indicates that the level of harvest and other forest depletions was well within the bounds of the maximum allowed under sustained yield management for all working groups. Forty-eight percent of the area harvested during the five years received a regeneration treatment; the remaining area is either intended for natural regeneration or is fresh

cutover. The area of regeneration assessed as free-to-grow during the term was 365 ha; this area will increase in the next five-year term as more Company-treated areas become eligible for free-to-grow assessment.

Table 2

NAGAGAMI FOREST FMA 501000

Comparison of the 1982-1987 Maximum Allowable Depletion, total depletion, harvest and regeneration activities and the 1987-1992 Maximum Allowable Depletion. (Ministry Phase-In operations included.)

Working Group/or Forest Unit	1982-1987 Maximum Allowable Depletion	Total Depletion	Harvest Cut	Regeneration Total	*1987-1992 Maximum Allowable Depletion
Spruce X,1,2	11,310	8,102	7,205		11,007
Spruce 3	1,920	144	128		1,994
Balsam Fir	2,760	1,803	1,646		2,706
Jack Pine	4,460	935	911		4,492
Poplar X,1,2	11,140	3,126	2,860	N/A	10,408
Poplar 3	4,005	351	342		4,287
White Birch X,1,2	2,325	123	117		2,326
White Birch 3	615	22	22		658
Other Conifer	680	86	84		704
Total	39,215	14,692	13,315	6,454	38,582*

* M.A.D. based on average-age calculation

The review committee was most impressed with the productive nature of Nagagami's sites and with the organization and intensity of silvicultural practice by the Company. Allocation of old and budworm-damaged timber for harvest and the continued treatment of cutover areas with intensive silvicultural methods will result in higher levels of timber productivity on the Nagagami Forest.

4. COMPANY CONCERNS

The Company was provided the opportunity to express any concerns that it might have with regard to FMA 501000 or with regard to the Ministry's administration of the agreement. Senior management of the Ontario Paper Company, though generally satisfied with the workings of the FMA, expressed concerns in the following areas:

- Any exclusion of chemical pesticides will reduce the level of protection and regeneration of the forest and the capability of the Company to carry out its obligations under the agreement.
- Road access restrictions will add significantly to Company operating costs.
- Large mature and overmature reserves maintained to accommodate the local tourist operators will substantially reduce future annual allowable cuts if not made available for harvest in the near future.
- Excessive requests via the Management Planning Manual for large quantities of operating maps for public reviews adds significantly to Company operating costs.

- The Ministry has placed a "cap" on the planting stock program, and this could impact on the Company's ability to regenerate cut-over lands on the Nagagami Forest.
- The Company has accepted what it considers as inferior quality planting stock during the first five-years because the Ministry could not supply additional planting stock as replacement. Under such circumstances, they feel that there should be a procedure to enable D.C.R.'s to waive the obligations of retreatment at Company expense for plantation failures attributable to stock quality.
- The recent influx of mining activity, in particular claim staking, has created operational problems for the regeneration program.

5. CONCLUSIONS AND RECOMMENDATIONS

The review committee was satisfied that the obligations of the company under the agreement have been satisfactorily performed by the Company during the five-year term under review, and notes that the Company and the Ministry have agreed to a management plan and ground rules for the second five-year term. The committee was impressed with the electronic quality control and record-keeping system being put into place by the Company, with the organization and intensity of silvicultural effort on its part, and with the Company's commitment to the success of its efforts on the Nagagami Forest.

RECOMMENDATION No. 1: That the Minister extend the remaining period of FMA 501000 by a further term of five consecutive years to March 31st, 2007.

RECOMMENDATION No. 2: That the Company and the Ministry jointly review the treatable status of lands cutover during this five-year term for which Table 1 of the ground rules specifies treatment but which have received no treatment or plans for treatment, and that the Company report any areas mutually agreed to be non-treatable in the 1988-89 annual report.

RECOMMENDATION No. 3: That in the event the Company should forecast harvest levels during the second five-year period to fall below the 90% level of those stated in the current plan, the Company should take immediate action to request, with reasonable explanation, an undercut variation from the Minister and to amend its management plan with a further surplus declaration.

RECOMMENDATION No. 4: That the Ministry acknowledge the fulfilment of the Company's NSR treatment obligations for the entire period of the 20-year agreement.

RECOMMENDATION No. 5: That the Ministry come to a final decision on an access plan for the Obakamiga Lake moratorium area, and that any major area of productive forest land rendered permanently unavailable for harvest by that plan be removed from the landbase contributing to the allowable cut. A permanent decision is required prior to the commencement of the preparation of the next management plan (1992-2012).

Five-Year Review

Pineland Timber Company Limited

**Pineland Forest
Agreement 501100
1982-1987**

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1. INTRODUCTION

1.1 PURPOSE OF THE REVIEW

The Minister of Natural Resources and Pineland Timber Company Limited signed a Forest Management Agreement (FMA) on the Pineland Forest located near Foleyet on February 28th, 1983. The purpose of that agreement was to provide for a continuous supply of forest products to the wood processing plants of the Company at Nairn Centre, Timmins and Espanola and to ensure that the forests of Pineland are harvested and regenerated to provide successive crops of timber on a sustained yield basis.

This fifth-year review was conducted on the Pineland Forest to determine whether the obligations of the Company under the agreement have been satisfactorily performed and to recommend to the Minister of Natural Resources whether the remaining period of the agreement should be extended by a further term of five years.

1.2 THE REVIEW COMMITTEE

The review was carried out by a committee of three, engaged by the Ministry of Natural Resources for this purpose. The three committee members were:

- Mr. R.A. Baxter, Director of Operations, Northern Ontario Ministry of Natural Resources (Retired), Committee Chairman,
- Mr. G.W. Bell, R.P.F., Vice-President Woodlands Spruce Falls Power and Paper Company Ltd. (Retired), and
- Dr. H.G. Cumming, Professor, Fish and Wildlife Management, School of Forestry, Lakehead University.

1.3 TASKS OF THE REVIEW COMMITTEE

The review committee's assignment was to undertake a fair and objective review of the Pineland Timber Company performance on the Pineland Forest during its first five-year term vis-a-vis its obligations under the forest management agreement and to make recommendations to the Minister of Natural Resources on the extension of the agreement's term according to the "Evergreen" section of the agreement.

The review was conducted by:

- examining the management plans, operating and annual plans and the annual reports prepared by the Company with regard to their submission dates and their acceptability to the Ministry,
- inspecting the depletion records, silvicultural records and access road maps for adequacy and for conformity with the management plans and the ground rules,
- comparing the levels of harvest and treatment of not satisfactorily regenerated (N.S.R.) lands in the annual reports with those required by provisions of the agreement,
- selecting and field inspecting harvest cuts and silvicultural projects typical of the techniques employed on the forest for conformity with the agreement holder's records and for field application of the ground rules,
- determining the degree to which other forest users and other forest values are accommodated in management planning and in field operations, and

- meeting with Company and Ministry district staff to identify problem areas and agreement concerns on the part of either party.

2. PROCEDURES AND FINDINGS

2.1 MANAGEMENT PLANNING

2.1.1 THE PREPARATION OF PLANS

Paragraphs 6(1), 10(1), 11(1) and 15(1) of the agreement require the Company to prepare management and operating plans and a series of annual plans. These plans must be prepared according to the timeframes specified in the agreement and according to the manual that has been approved by the Minister for this purpose.

The forest management agreement was signed on February 28th, 1983 and the management plan was due twelve months later. The first draft of the plan was submitted on the due date. Alterations were required and an extension of the due date of the revised plan was granted by the Ministry, as additional time was required to review potential conflicts with other forest users. The altered plan was due October 31st, 1984 and was received December 3rd, 1984.

The operating plan for the 1982 to 1987 period was due August 31st, 1983 and was submitted in early September 1983. The plan was returned to the Company for alterations and was resubmitted March 19th, 1984. Additional time was required to resolve the modified management area (MMA) package and the location of the main access road which would join up the Dore Road with the E.B. Eddy Company roads on the adjacent Upper Spanish Forest.

For the first year of the agreement, Pineland Timber Company operated under the annual plan for licence 224800. The annual plan for the second year of the agreement was prepared prior to

the signing of the FMA with the understanding that operations for that year would be carried out under the terms of the agreement. That annual plan was due February 28th, 1983, and was submitted on schedule. The annual plan for the 1984-85 year, due Oct 31 1983, was submitted December 2nd, 1983. Beginning with the 1985-86 planning year, the due date for annual plans was altered to December 1 for all FMAs. The Pineland 1985-86 annual plan was submitted on October 31st, 1984, one month before the due date, while the plan for the fifth year (1986-87) was submitted on December 9th, 1985.

The Company has prepared a management plan for the second five-year term in accordance with the new and more complex Timber Management Planning Manual for Crown Lands in Ontario. The new plan was due October 1st, 1986 and was submitted October 5, 1986, and resubmitted February 16th, 1987. The delay was due to problems in the finalizing of the location of river crossings and the need to resolve other forest user conflicts.

In conclusion, the Company was found to have been late in meeting some of its management planning obligations.

2.1.2 PLAN IMPLEMENTATION

The agreement requires that the Company conduct its operations in accordance with the approved management, operating and annual plans. The accomplishments of the Company in silviculture and road construction are summarized in Table 1.

The review committee examined the harvest cut and road construction records of the Company and found them to be generally in conformity with the areas allocated for harvest and the road locations specified in the management documents. The only deviations detected were considered to be of a minor and inconsequential nature. Amendments to the plans were requested

TABLE 1

Summary of the Company's forest operations at Ministry expense for 1982-87.

FMA EXPENDITURE AND ACCOMPLISHMENT REPORT FOR THE FIVE YEAR TERM 1982-87		FMA 501100 PINELAND FOREST PINELAND TIMBER COMPANY LTD.
ACTIVITY	HECTARES	DOLLARS
HARVEST CUT	13,433	
NATURAL REGENERATION	0	
ARTIFICIAL REGENERATION		
PLANTING BAREROOT	1,837	
PLANTING CONTAINER	2,339	
SEEDING DIRECT	0	
SEEDING WITH SITE PREP	27	
TOTAL ARTIFICIAL	4,203	
TOTAL REGENERATION	4,203	
TENDING		
CHEMICAL CLEANING/AERIAL	1,519	
CHEMICAL CLEANING/GROUND	9	
OTHER TENDING	0	
TOTAL TENDING	1,528	
SITE PREPARATION		
MECHANICAL	6,192	
CHEMICAL	1,193	
PRESCRIBED BURN	0	
TOTAL SITE PREPARATION	7,385	
MNR SILVICULTURE PAYMENTS		3,558,833
ROAD CONSTRUCTION	KILOMETRES	DOLLARS
PRIMARY	121.0	
SECONDARY	258.1	
TOTAL CONSTRUCTION	379.1	7,435,240
ROAD MAINTENANCE	646.1	285,020
MNR TOTAL ROAD PAYMENTS		7,720,260
TOTAL PAYMENTS		11,279,093

N.B. This table represents activities carried out by the Company, and the associated costs to MNR. As part of the MNR obligation under the Agreement, Forest Management Activities were also conducted by MNR, at additional expense.

both in harvest allocations and road locations and were given approval by the Ministry. The levels of harvest and access construction during the five years were lower than those specified, while the level of silvicultural activity was above those specified in the plans as portrayed in Figure 1. Reasons for the low level of harvest are provided in Section 2.3 and for road construction in Section 2.5 of this report.

The seeding objective was not reached as the Company switched to hand scalping and planting with container stock on sites originally planned for seeding, which is an acceptable regeneration treatment under the ground rules.

2.2 THE GROUND RULES

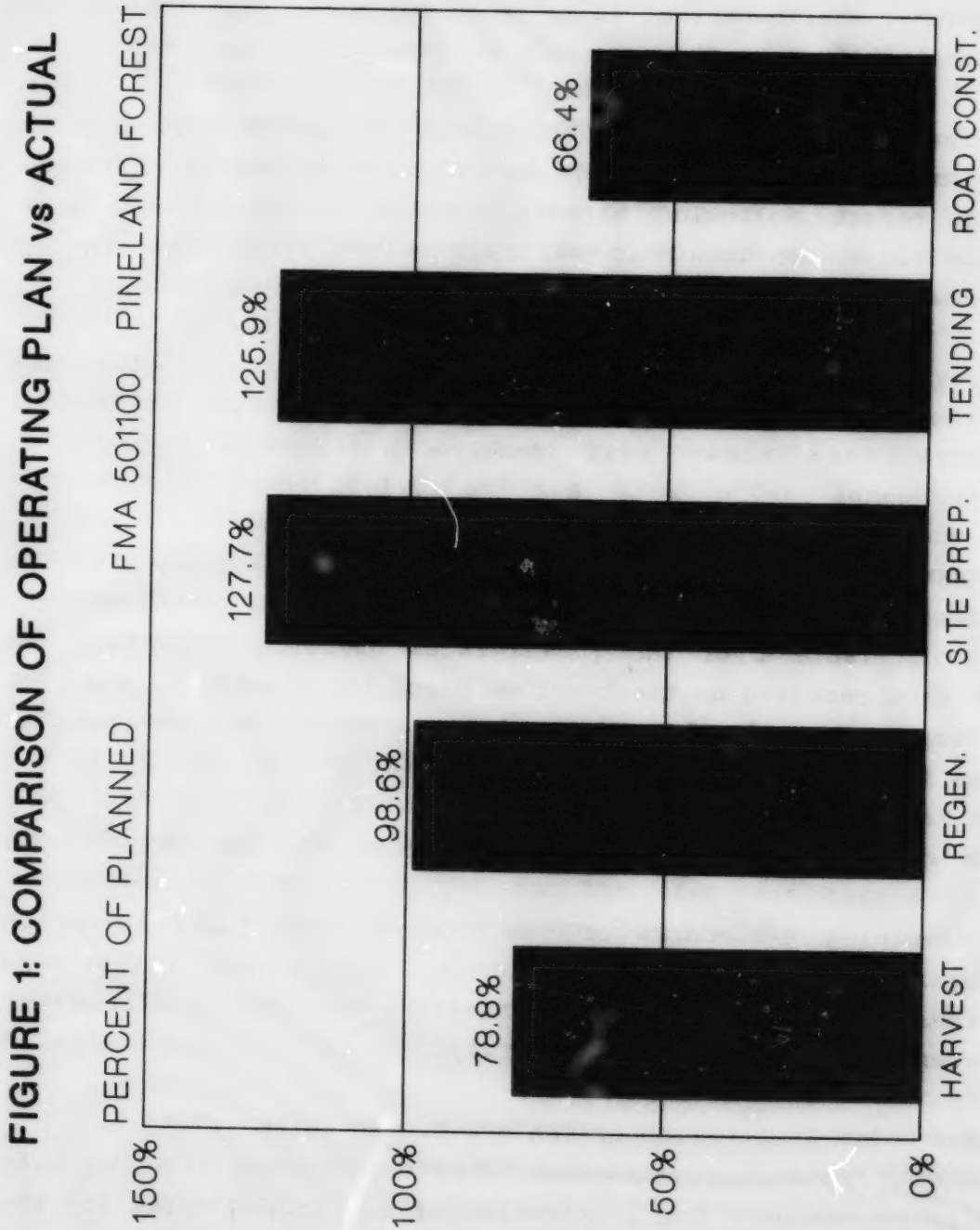
2.2.1 KNOWLEDGE AND FAMILIARITY WITH THE GROUND RULES AND THE AGREEMENT

Based on the discussions held with the Company, both in the office and field, it was apparent to the review committee that the Company staff were knowledgeable and familiar with the provisions of the ground rules and the agreement.

2.2.2 CONFORMITY OF HARVEST AND SILVICULTURE OPERATIONS WITH THE GROUND RULES

The committee's examination of the silvicultural records, its field inspections and its discussion with the designated Crown representative (D.C.R.) all confirmed that harvesting and silvicultural operations have been conducted in accordance with the ground rules. The ground rules do provide for deviations from the silvicultural techniques laid out in Table 1 of the ground rules; new silvicultural techniques were proposed by the Company in its annual plans and approved by the Ministry prior to any implementation.

The committee notes that the ground rules permit the classification of non-treatable sites by mutual agreement.



Any area may be classed as non-treatable where extremes in topography, shallowness of soil, excessive rock, poor drainage or inaccessibility make it uneconomic or impractical to treat.

Non-treatable areas were to be identified in the annual plan, prior to harvest if possible, and included as depletion in the annual report following harvest. To-date no areas have been classified as non-treatable on the Pineland Forest despite the fact that over 13,400 hectares (ha) have been harvested.

The review committee is concerned that non-treatable areas may have been overlooked by both parties and that a failure to classify them today will result in disputed retreatment obligations.

RECOMMENDATION: That the Company and the Ministry jointly review the treatable status of lands cutover during the five-year term for which Table 1 of the ground rules specifies treatment but which have received no treatment or plans for treatment, and that the Company report any areas mutually agreed to be non-treatable in the 1988-89 annual report.

2.2.3 CONFORMITY OF INVOICING PRACTICES WITH THE GROUND RULES

The invoicing procedures of the Company were found to be in conformity with those specified in the ground rules. Some invoices were returned by the Ministry for clarification but differences were resolved immediately.

2.2.4 THE PREPARATION OF THE NEW GROUND RULES

The forest management agreement with the Company requires both parties to commence the preparation of new ground rules for the next five-year term at least eight months prior to the expiry of the old ground rules, and to agree upon those ground rules on or before that expiry date. The committee notes that this obligation

has been met and that the new ground rules were agreed to by both parties prior to April 1st, 1987.

2.3 HARVEST LEVELS AND ALLOWABLE CUT

According to paragraph 20(1) of the agreement, the Company has agreed to maintain its harvest level on the Pineland Forest at a level between 90% and 110% of the calculated allowable cut for each working group during each five-year term. The company may request the Minister to authorize variations to those levels specified in the agreement.

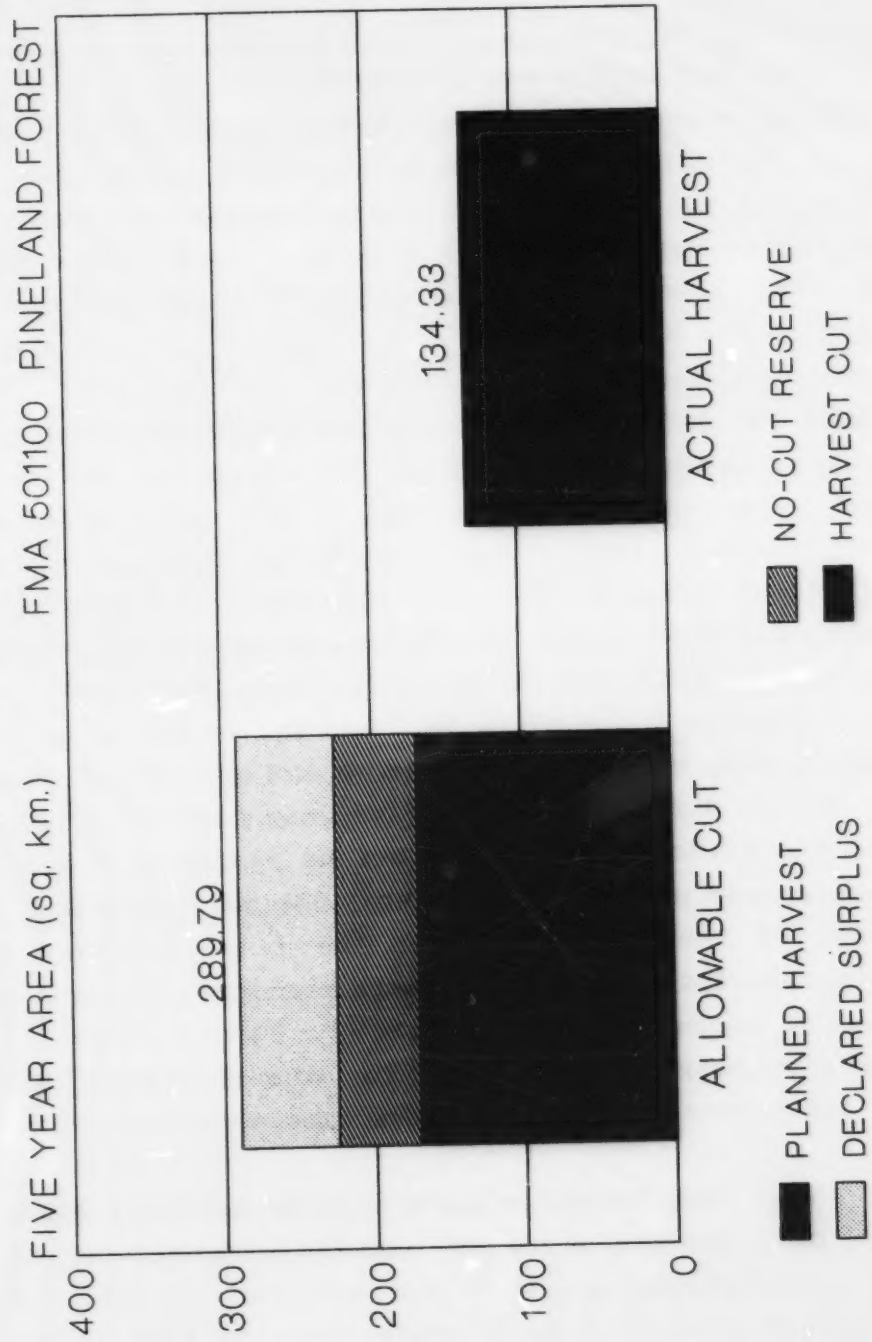
Paragraphs 20(3) and 20(4) of the agreement provide for either remedy or liquidated damages in the event of an overcut or undercut, respectively, on the area under agreement. The agreement holder may avoid liquidated damages through the declaration of timber surplus to his needs in an approved management plan; however, liquidated damages do not apply in the first five-year term of a forest management agreement.

The Company did not meet its harvest obligations in any of the working groups during its first five-year term. The level of the undercut was evident by mid term but no request for variation of the 90% harvest was made to the Minister. Figure 2 shows a comparison of the actual cut for the five-year term with the allowable cut, for all working groups combined.

There are a number of reasons for the Company's failure to utilize its planned level of harvest. These include:

- very soft lumber markets in 1982 and 1983 which reduced mill production to 58% and 80% respectively of planned production,

FIGURE 2: COMPARISON OF ALLOWABLE CUT, ALLOCATION, AND HARVEST



- harvesting was reduced within the agreement area because of a Company decision to complete harvesting on a third party agreement area on the Spruce Falls Power & Paper Company Limited licence (Reeves Twp.) before it expired March 31, 1983, and
- planned shipments of pulpwood to customers were cancelled due to poor paper markets,

RECOMMENDATION: That in the event the Company should forecast harvest levels during the second five-year term to fall below the 90% level of those stated in the current plan, the Company should take immediate action to request, with reasonable explanation, an undercut variation from the Minister and to amend its management plan with a further surplus declaration.

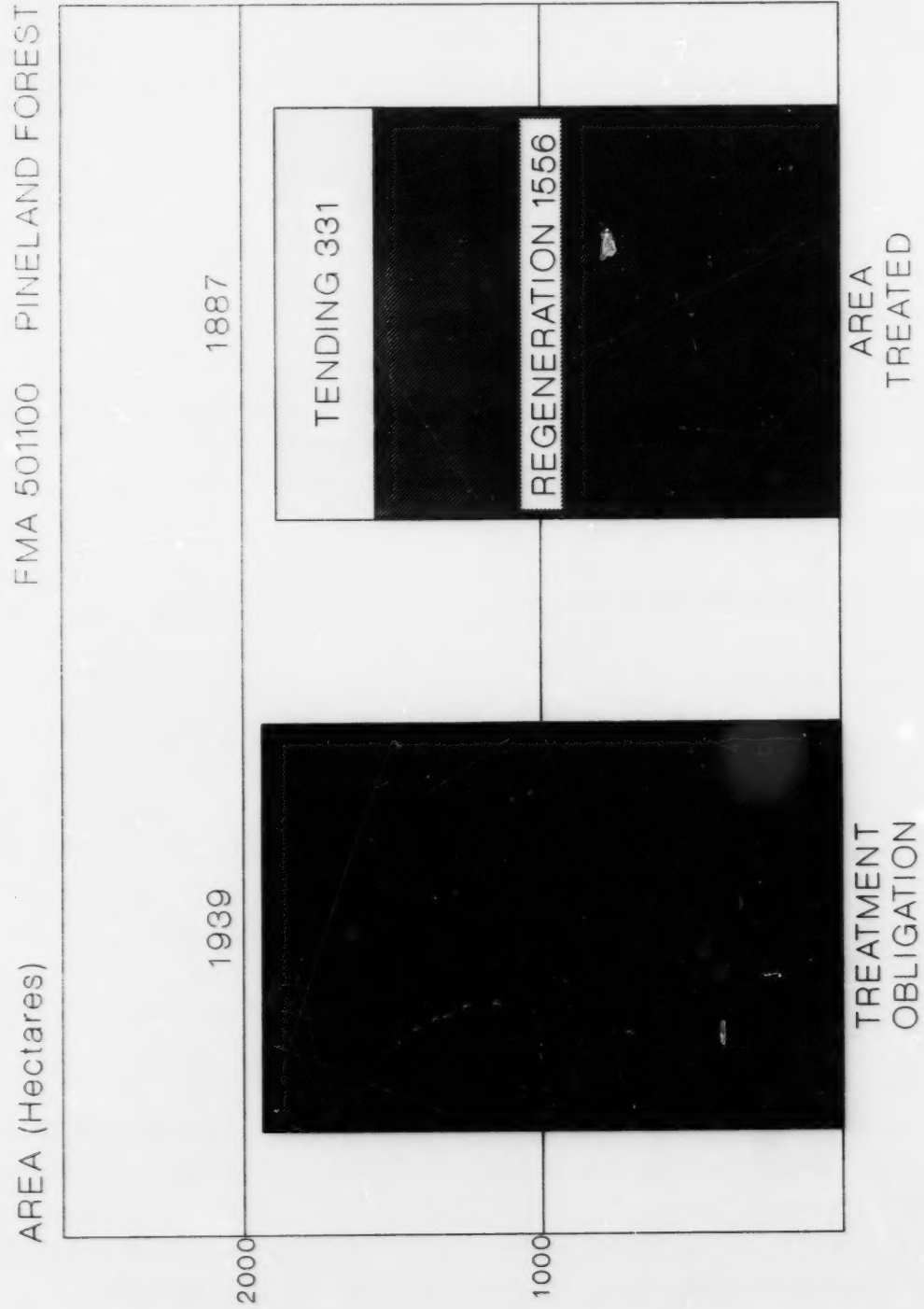
2.4 N.S.R. OBLIGATIONS

Under provisions of the agreement, the Company has an obligation to reforest N.S.R. lands at the rate of 5% of class 2 and 3 N.S. R. lands annually. This amounts to 1,939 ha in the five-year term under review, as shown in Figure 3. The Company completed 97% of its obligated commitment according to the agreement. The Company is on track to meet its full N.S.R. obligations and the review committee was impressed with the intensive regeneration practices that it observed on N.S.R. lands.

2.5 ROAD CONSTRUCTION

Paragraph 31 of the agreement provides for the Minister to pay for the construction or reconstruction of forest access roads on the agreement area. To be eligible for payment, roads must be detailed in an approved annual plan and constructed according to the standards specified in Schedule "E" of the agreement.

**FIGURE 3: COMPARISON OF NSR TREATMENT OBLIGATION
AND NSR TREATMENT, 1982-87**



On the Pineland Forest, roads are inspected jointly by a Ministry Representative and a Company representative prior to acceptance for final payment. A few kilometers of road were found to be below standard on initial inspection in the early years of the agreement, but as soon as this was pointed out by the Ministry representative, the Company took corrective action. In the last three years, roads have been built to the specified standards.

Figure 1 shows a reduction from the level of planned road construction to the level of actual construction during the term under review. Two reasons were offered for the shortfall: the level of harvest was lower than that planned (see explanations of Section 2.3 of this report), and the level of MNR funding allotment for road construction was lower than that requested.

2.6 COMPANY RECORDS

The committee found that documentation of the dates of submission, alteration, re-submission, approval and amendments of its management documents was lacking in many cases. Copies of the input received as a result of public review of its timber management plan were not on file, although available at the MNR district office. The committee encourages the Company to recognize the importance of documenting its performance of agreement obligations and to improve its correspondence files in this regard.

Silvicultural records have evolved from manually produced data and multiple maps to computer-controlled information related to areas recorded on a master mylar. The current method provides excellent accessibility to information and control of records from initiation of site preparation through to free-to-grow status.

Records for individual projects were followed from the original plan to the field to the final invoicing with no problems encountered.

2.7 ANNUAL REPORTS

Paragraph 38 of the agreement requires the agreement holder to prepare an annual report in accordance with the Forest Management Manual in respect of the operations conducted on the agreement area in the year proceeding.

As the agreement was not signed until February 28th, 1983, the annual report for the first year of the agreement was exempted from the April 30th deadline. The report for the second year was not submitted on time while those for the third, fourth and fifth years were submitted by the established due date.

Three of the five reports were returned to the Company for correction as the data submitted by the Company did not correspond with the Ministry's data in such categories as total road costs and area of silvicultural treatment.

RECOMMENDATION: That prior to the submission of annual reports, the Company take action to ensure that its records are correct and up-to-date.

2.8 INTEGRATION WITH OTHER FOREST USERS

Section 7 of the ground rules entitled Withdrawals and Reserves, details how other forest users were to be identified and accommodated during the first five-year term. It was the responsibility of the Ministry to identify these areas and make prescriptions to accommodate other forest users. The Company was to implement the Ministry's prescriptions, so as to protect those other forest values.

Water crossings were examined during the field trip and were found to be generally well handled.

In conducting its operations the Company has respected the M.M.A.'s with only one inadvertent trespass during the five-year term but it has regularly requested approval to carry out modified cutting within these areas. Some joint on-site inspections have been made in an attempt to arrive at prescriptions for specific areas. These have mostly been successful. However, more effort is required to resolve problems in a collaborative manner at the field level.

The Company has been able to minimize conflicts with mining companies despite heavy staking in areas where intensive silvicultural activities are taking place. Company officials have also participated in meetings with the local tourist association and individual tourist operators and have been successful in reducing potential conflicts, though some remain.

Despite this apparent progress, some differences separate the Company and the Ministry in terms of approach in the matter of integration of other resource values. Company officials believe that the Ministry gives too much weight to tourism interests on the Pineland Forest and are unconvinced of the need for many of the M.M.A.'s prescribed by the Ministry for protection of fish and wildlife values.

RECOMMENDATION: That senior Company and Ministry officials develop a plan of action to facilitate implementation of Section 15 of the ground rules for the second five-year term entitled "Integration Of Other Resource Values In Timber Management". This plan of action to be in place within six months of the approval of this review.

3. MAINTENANCE OF PRODUCTIVITY

Table 2 shows the maximum allowable depletion (allowable cut) which was calculated for the Pineland Forest at the beginning of the five-year term under review.

It indicates that the level of harvest and other forest depletions was well below the maximum allowed under sustained yield management for all working groups. Fifty-four percent of the area harvested during the five-year operating period received

Table 2

PINELAND FOREST FMA 501100

Comparison of the 1982-1987 Maximum Allowable Depletion, total depletion, harvest and regeneration activities and the 1987-1992 Maximum Allowable Depletion. (Ministry Phase-In operations included.)

Working Group/or Forest Unit	1982-1987 Maximum Allowable Depletion	Total Depletion	Harvest Cut	Regeneration Total	1987-1992 Maximum Allowable Depletion
Jack pine	4,377	2,738	2,503		4,796
Black spruce	5,356	2,625	2,544		6,912
White spruce	1,020	473	431		1,338
Balsam fir	N/A	362	331	N/A	3,314
Other conifer	1,441	378	323		1,672
Poplar	8,604	4,070	3,881		9,753
White Birch	8,181	3,512	3,420		9,977
Total	28,979	14,158	13,433	7,281	37,762

a regeneration treatment; the remaining area is either intended for natural regeneration or is fresh cut-over. There was no area eligible for free-to-grow during the term under review but many areas currently being treated will become free-to-grow in the next five-year term.

The review committee was impressed with the progress of regeneration and site preparation practices and by the enthusiasm of the Company personnel.

4. COMPANY CONCERNS

The Company was provided the opportunity to express any concerns that it might have with FMA 501100 or with regard to the Ministry's administration of the agreement. The following are the concerns listed by senior management of Pineland Timber Company Limited.

1. F.M.A. Funding: The Company expressed concern with the level of funding for road construction, concern over the Ministry's late notification date of funding allotments and concern over the Ministry's ability to continue to finance the provincial F.M.A. program.
2. M.N.R. Staff Turnover: The high rate of staff turnover at the Chapleau M.N.R. district office is an impediment to the development of a good working relationship between the Company and M.N.R.
3. Tending After Free-To-Grow: The Company finds that paragraph 23 of the agreement (stumpage reduction) provides insufficient incentive to carry out tending treatments after stands have been declared free-to-grow.

4. The Classification of Non-treatable Areas: The concern here is over reaching agreement with the Ministry on treatability of some areas and on a formal procedure to document areas which are classed non-treatable. Also, there is no appeal

procedure to use in the event M.N.R. and the Company cannot reach mutual agreement on the classification of specific areas (i.e. treatable or non-treatable).

5. Prime Site Management: The Company and the Ministry both support the "prime site" approach to silvicultural decision making; but the Company is concerned with the possible repercussions that literal interpretation of paragraph 24 of the agreement and the ground rules may have on this approach. (The prime site concept is one in which the prescribed intensity of silvicultural effort is varied according to a number of site and economic factors).
6. Autonomy Of Management: The opportunity to have meaningful input into new M.N.R. policies and procedures vitally affecting M.M.A.'s is at times not provided to the Company.
7. Management Planning: The Ministry's requirements for management plans, annual work schedules, plan amendments and support documentation have become, in the opinion of the Company, unnecessarily onerous, and with reference to the M.N.R.'s present policy on amending the existing Timber Management Plan or annual work schedule, highly inflexible.
8. Nursery Stock: That the quantity of nursery stock for the F.M.A. not be capped in the future.

5. CONCLUSIONS AND RECOMMENDATIONS

The review committee is satisfied that the obligations of the Company under the agreement have been satisfactorily performed by the Company during the five-year term under review and notes that the Company and the Ministry have agreed to a management plan and ground rules for the second five-year term. The committee was impressed by the amount of effort put forth by the Company in its silvicultural program and with the commitment of the Company and its staff towards a successful Pineland Forest.

RECOMMENDATION No. 1: That the Minister extend the remaining period of FMA 501100 by a further term of five consecutive years to March 31st, 2007.

RECOMMENDATION No. 2: That the Company and the Ministry jointly review the treatable status of lands cutover during the five-year term for which Table 1 of the ground rules specifies treatment but which have received no treatment or plans for treatment, and that the Company report any areas mutually agreed to be non-treatable in the 1988-89 annual report.

RECOMMENDATION No. 3: That in the event that the Company should forecast harvest levels during the second five-year period to fall below the 90% level of those stated in the current plan, the Company should take immediate action to request, with reasonable explanation, an undercut variation from the Minister and to amend its management plan with a further surplus declaration.

RECOMMENDATION No. 4: That prior to the submission of annual reports, the Company take action to ensure that its records are correct and up-to-date.

RECOMMENDATION No. 5: That senior Company and Ministry officials develop a plan of action to facilitate implementation of Section 15 of the ground rules for the second five-year term entitled "Integration Of Other Resource Values In Timber Management". This plan of action to be in place within six months of the date of approval of this review.

Five-Year Review

Boise Cascade Canada Limited

**Seine River Forest
Agreement 501200
1982-1987**

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1. INTRODUCTION

1.1 PURPOSE OF THE REVIEW

The Minister of Natural Resources and Boise Cascade Canada Limited signed a Forest Management Agreement (FMA) on the Seine River Forest located near Fort Frances on March 30th, 1983. The purpose of that agreement was to provide for a continuous supply of forest products to the wood processing plants of the Company at Fort Frances and to ensure that the forests of the Seine River Forest are harvested and regenerated to produce successive crops of timber on a sustained yield basis.

This fifth-year review was conducted on the Seine River Forest to determine whether the obligations of the Company under the agreement have been satisfactorily performed and to recommend to the Minister of Natural Resources whether the remaining period of the agreement should be extended by a further term of five years.

1.2 THE REVIEW COMMITTEE

The review was carried out by a committee of three, engaged by the Ministry of Natural Resources for this purpose. The three committee members were:

- Mr. G.W. Bell, R.P.F., Vice-President Woodlands Spruce Falls Power and Paper Company Ltd., (Retired) Committee Chairman,
- Mr. R.A. Baxter, Director of Operations, Northern Ontario, Ministry of Natural Resources (Retired), and
- Dr. H.G. Cumming, Professor, Fish and Wildlife Management, School of Forestry, Lakehead University.

1.3 TASKS OF THE REVIEW COMMITTEE

The Review Committee's assignment was to undertake a fair and objective review of Boise Cascade Canada Ltd. performance on the Seine River Forest during its first five-year term vis-a-vis its obligations under the forest management agreement, and to make recommendations to the Minister of Natural Resources on the extension of the agreement's term according to the "Evergreen" section of the agreement.

The review was conducted by:

- examining the management plans, operating and annual plans and the annual reports prepared by the Company, with regard to their submission dates and their acceptability to the Ministry,
- inspecting the depletion records, silvicultural records and access road maps for adequacy and for conformity with the management plans and the ground rules,
- comparing the levels of harvest and treatment of not satisfactorily regenerated (N.S.R.) lands in the annual reports with those required by provisions of the agreement,
- selecting and field inspecting harvest cuts and silvicultural projects typical of the techniques employed on the forest for conformity with the agreement holder's records and for field application of the ground rules,
- determining the degree to which other forest users and other forest values are accommodated in management planning and in field operations, and

- meeting with Company and Ministry district staff to identify problem areas and agreement concerns on the part of either party.

2. PROCEDURES AND FINDINGS

2.1 MANAGEMENT PLANNING

2.1.1 THE PREPARATION OF PLANS

Paragraphs 6 (1), 10 (1), 11 (1) and 15 (1) of the agreement require the Company to prepare management and operating plans and a series of annual plans. These plans must be prepared according to the timeframes specified in the agreement and according to the manual that has been approved by the Minister for this purpose.

The forest management agreement was signed on March 30th, 1983 and the management plan was due 12 months later. The plan was submitted on March 30th, 1984 and received for final approval on November 16th, 1984.

The operating plan for the 1982 to 1987 period was due September 30th, 1983. An extension was given by the Ministry until November 30th, 1983, and the plan was submitted prior to that date. The plan was approved on April 27th, 1984.

For the first year of the agreement operations were carried out under part of Parcel 1, Schedule C, Licence 326700. The annual plan for 1983-84 was submitted on time while the plan for 1984-85 was submitted on November 15th, 1984. This approved late submission resulted from changes in the operating plan which was being prepared concurrently. The plans for the last four years under review were returned to the Company for minor alterations and they were all resubmitted by the required date.

The Company has prepared a management plan for the second five-year term in accordance with the new and more complex Timber Management Planning Manual For Crown Lands in Ontario. The new plan was submitted prior to the due date of October 1st, 1986.

In conclusion, the Company met its management planning obligations for the 20-year management plan, the five-year operating plan and the annual plans. The Ministry was complimentary to the Company on the quality of its management planning.

2.1.2 PLAN IMPLEMENTATION

The agreement requires that the Company conduct its operations in accordance with the approved management, operating and annual plans. The accomplishments of the Company in silviculture and road construction are summarized in Table 1.

The review committee examined the harvest cut and road construction records of the Company and found them to be generally in conformity with the areas allocated for harvest and the road locations specified in the management documents. Three minor deviations and one major deviation from the approved cutting areas were recorded, all of which resulted in charges under the Crown Timber Act. The major deviation involved the cutting of standing timber rather than the timber in a blowdown area. Other deviations were considered to be inconsequential. Amendments to the plans were requested both in harvest allocation and road locations. Public hearings were held for major amendments. The levels of harvest, access construction, and silvicultural activity during the five years were lower than those specified in the plans as portrayed in Figure 1.

TABLE 1

Summary of the Company's forest operations at Ministry expense for 1982-87.

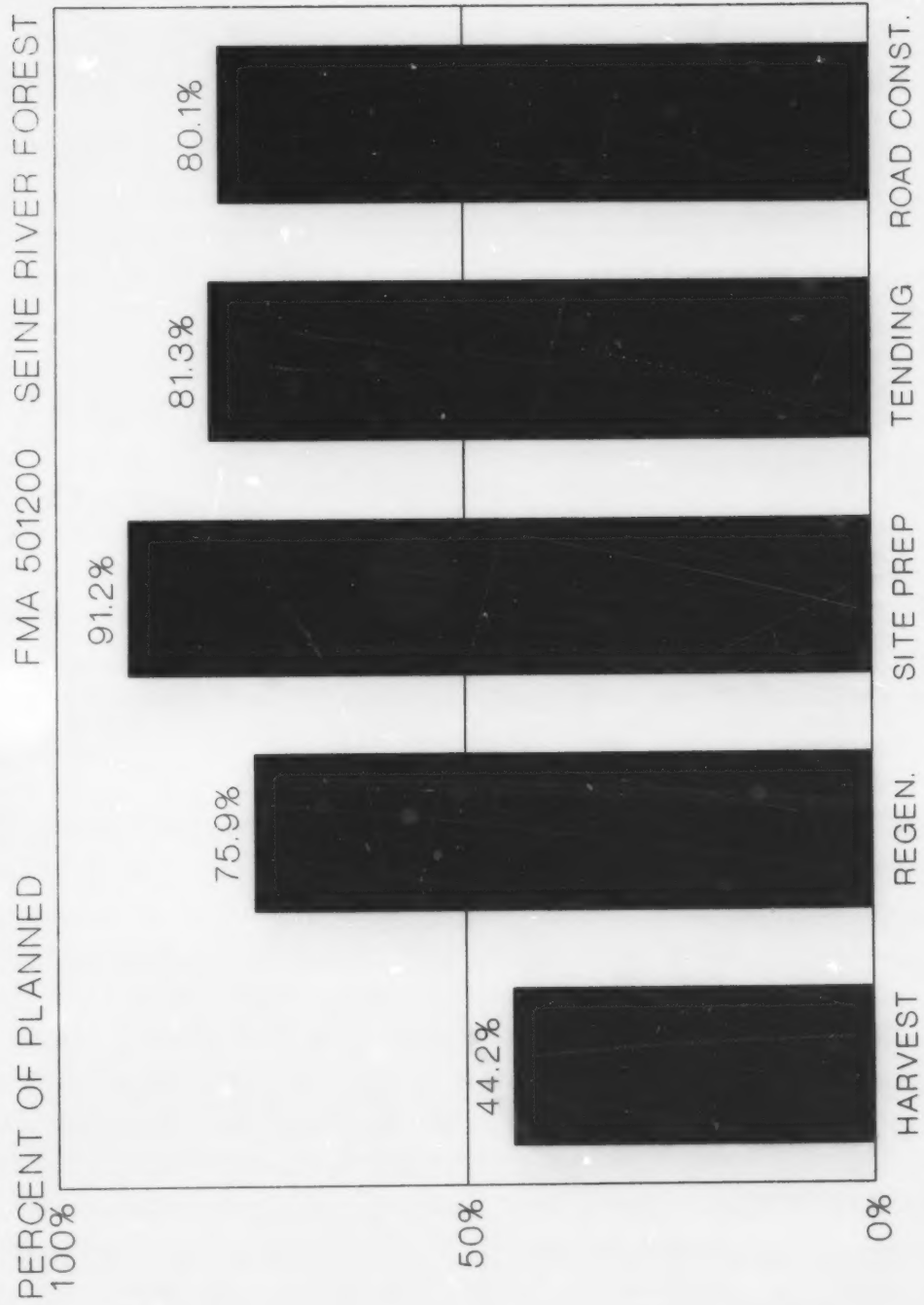
**FMA EXPENDITURE AND
ACCOMPLISHMENT REPORT
FOR THE FIVE YEAR TERM 1982-87**

**FMA 501200
SEINE RIVER FOREST
BOISE CASCADE CANADA LTD.**

<u>ACTIVITY</u>	<u>HECTARES</u>	<u>DOLLARS</u>
HARVEST CUT	6574	
NATURAL REGENERATION	192	
ARTIFICIAL REGENERATION		
PLANTING BAREROOT	95	
PLANTING CONTAINER	608	
SEEDING DIRECT	2,759	
SEEDING WITH SITE PREP	521	
TOTAL ARTIFICIAL	3,983	
TOTAL REGENERATION	4,175	
TENDING		
CHEMICAL CLEANING/AERIAL	1,456	
CHEMICAL CLEANING/GROUND	0	
OTHER TENDING	0	
TOTAL TENDING	1,456	
SITE PREPARATION		
MECHANICAL	3,867	
CHEMICAL	421	
PRESCRIBED BURN	0	
TOTAL SITE PREPARATION	4,288	
MNR SILVICULTURE PAYMENTS		1,016,406
ROAD CONSTRUCTION	KILOMETRES	DOLLARS
PRIMARY	33.3	
SECONDARY	36.1	
TOTAL CONSTRUCTION	69.4	2,101,850
ROAD MAINTENANCE	157.1	70,000
MNR TOTAL ROAD PAYMENTS		2,171,850
TOTAL PAYMENTS		3,188,256

N.B. This table represents activities carried out by the Company, and the associated costs to MNR. As part of the MNR obligation under the Agreement, Forest Management Activities were also conducted by MNR, at additional expense.

FIGURE 1: COMPARISON OF OPERATING PLAN vs ACTUAL



2.2 THE GROUND RULES

2.2.1 KNOWLEDGE AND FAMILIARITY WITH THE GROUND RULES AND THE AGREEMENT

Based on the discussions held with the Company, both in the office and field, it was apparent to the review committee that the Company staff were knowledgeable and familiar with the provisions of the ground rules and the agreement.

2.2.2 CONFORMITY OF HARVEST AND SILVICULTURE OPERATIONS WITH THE GROUND RULES

The committee's examination of the silvicultural records, its field inspections and its discussions with the designated Crown representative (D.C.R.) all confirmed that harvesting and silvicultural activities have been conducted in accordance with the ground rules. The ground rules do provide for deviations from the silvicultural techniques laid out in Table 1 of the ground rules; new silvicultural techniques were proposed by the Company in its annual plans and these were approved by the Ministry prior to implementation.

The committee notes that the ground rules permit the classification of non-treatable sites by mutual agreement. Any area may be classed as non-treatable where extremes in topography, shallowness of soil, excessive rock, poor drainage or inaccessibility make it uneconomic or impractical to treat. Non-treatable areas were to be identified in the annual plan, prior to harvest if possible, and included as depletions in the annual report following harvest. To date no areas have been classified as non-treatable on the Seine River Forest despite the fact that over 6,500 hectares (ha) have been harvested.

The review committee is concerned that non-treatable areas may have been overlooked by both parties and that a failure to classify them today will result in disputed retreatment obligations.

RECOMMENDATION: That the Company and the Ministry jointly review the treatable status of lands cut-over during the five-year term for which Table 1 of the ground rules specifies treatment but which have received no treatment or plans for treatment, and that the Company report any areas mutually agreed upon to be non-treatable in the 1988-89 annual report.

2.2.3 CONFORMITY OF INVOICING PRACTICES WITH THE GROUND RULES

The invoicing procedures of the Company were found to be in conformity with those specified in the ground rules. Any difference in hectares treated, number of trees planted, or kilometres of road constructed or maintained were reconciled between the Company representative and the D.C.R.

2.2.4 THE PREPARATION OF THE NEW GROUND RULES

The forest management agreement with the Company requires both parties to commence the preparation of new ground rules for the next five-year term at least eight months prior to the expiry of the old ground rules and to agree upon those ground rules on or before that expiry date. The preparation of the new ground rules commenced during the first week of July, well in advance of the required date, and were agreed upon prior to the required date of March 31st, 1987.

2.3 HARVEST LEVELS AND ALLOWABLE CUT

According to paragraph 20 (1) of the agreement, the Company has agreed to maintain its harvest level on the Seine River Forest at a level between 90% and 110% of the calculated allowable cut for each working group during each five-year term. The Company may request the Minister to authorize variations to those levels specified in the agreement.

Paragraphs 20 (3) and 20 (4) of the agreement provide for either remedy or liquidated damages in the event of an overcut or undercut, respectively, on the area under agreement. The agreement holder may avoid liquidated damages through the declaration of timber surplus to his needs in an approved management plan; however, liquidated damages do not apply in the first five-year term of a forest management agreement.

The Company did not meet its harvest obligations in any of the working groups during its first five-year term. The level of the undercut was evident by mid-term but no request for variation of the 90% harvest was made to the Minister. Figure 2 shows a comparison of the actual cut for the five-year term with the allowable cut, for all working groups combined.

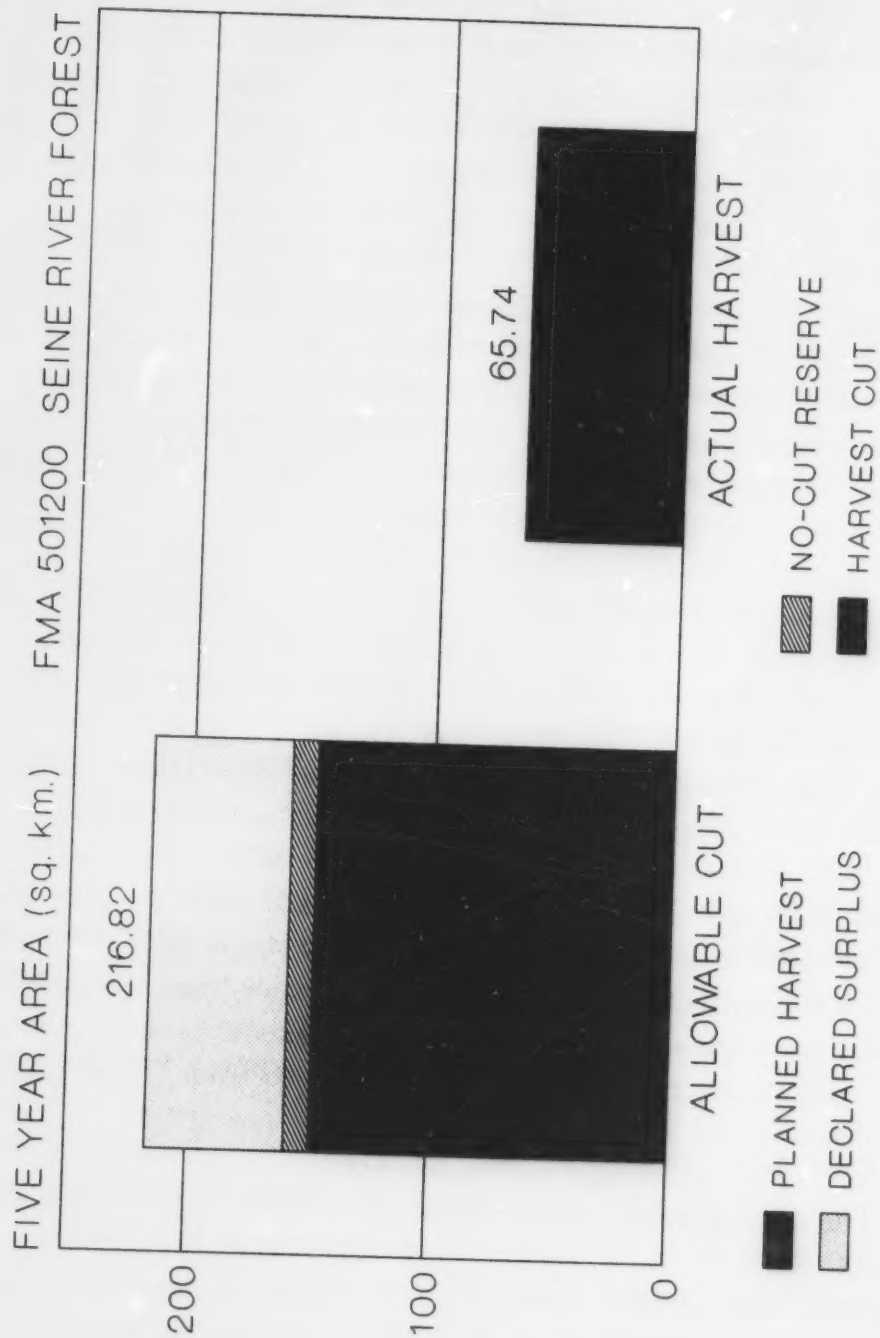
The main reason for the Company failure to utilize its planned level of harvest was reduced mill production due to soft market conditions in 1982 and 1983. To lessen the economic impact on any one labour group, harvest levels were reduced in all the Company's wood procurement areas, including its forest management agreements, Crown management units and purchase wood.

RECOMMENDATION: That in the event the Company should forecast harvest levels during the second five-year term to fall below the 90% level of those stated in the current plan, the Company should take immediate action to request, with reasonable explanation, an undercut variation from the Minister and to amend its management plan with a further surplus declaration.

2.4 N.S.R. OBLIGATIONS

Under provisions of the agreement, the Company has an obligation to reforest N.S.R. lands at the rate of 5% of class 2 and 3 N.S.R. lands annually. This amounts to 440 ha in the five-year term under review. The Company completed 378% (1667 ha) of its

FIGURE 2: COMPARISON OF ALLOWABLE CUT, ALLOCATION, AND HARVEST



obligated commitment. The review committee was impressed with the Company's plans and effort to regenerate N.S.R. lands as seen in Figure 3.

2.5 ROAD CONSTRUCTION

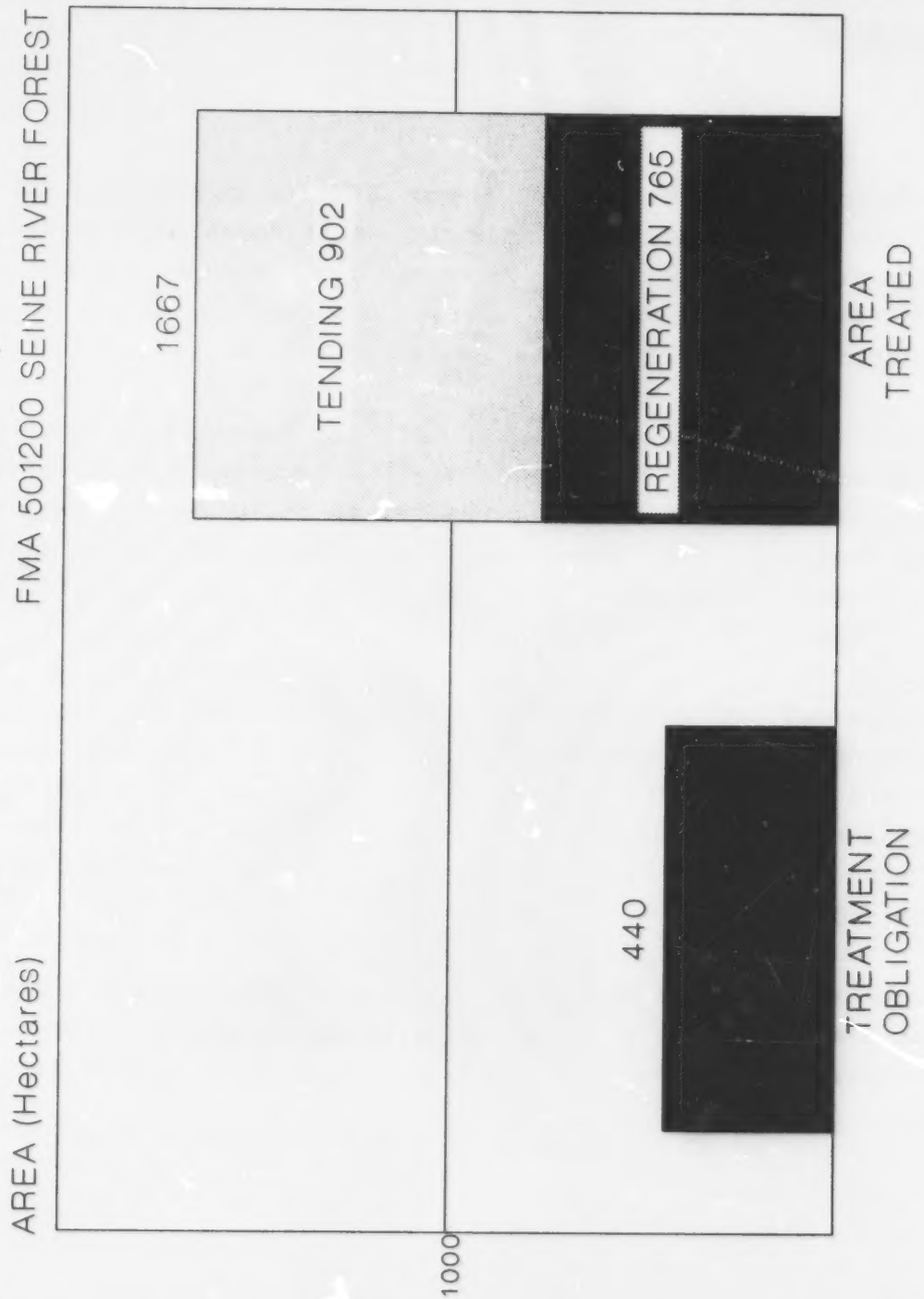
Paragraph 31 of the agreement provides for the Minister to pay for the construction or reconstruction of forest access roads on the agreement area. To be eligible for payment, roads must be detailed in an approved annual plan and constructed according to the standards specified in Schedule "E" of the agreement.

On the Seine River Forest most primary roads had already been built prior to the FMA agreement. New construction concentrated on secondary roads, mainly connected to the Glenorchy main road. Completed roads are inspected jointly by the Ministry district senior operations technician and a Company representative prior to acceptance for final payment.

The Company had constructed its roads to standards higher than those specified in Schedule "E" (e.g. primary road load capacity 160,000 lbs. vs. the Schedule "E" requirement of 158,000 lbs.; secondary road minimum travel surface 16 feet vs. 13 feet). In no case during the term under review has a road been judged to be substandard.

Figure 1 shows that the level of road construction was lower than that planned. This shortfall occurred mainly in the first year of the term under review and had been almost corrected by the fifth year.

**FIGURE 3: COMPARISON OF NSR TREATMENT OBLIGATION
AND NSR TREATMENT, 1982-87**



2.6 COMPANY RECORDS

The committee found that the Company's records concerning the documentation of submission, resubmission, approvals and amendments of its management documents were kept in a manner that allowed for easy reconciliation with the requirements of the agreement.

Silvicultural records are catalogued by numbers assigned to management blocks marked on mylar maps. Each treatment is detailed on an appropriate form and the forms collected into record books.

All records were readily available. In 1985 the Company began a new system of electronic record keeping and is now transferring its records to this format.

2.7 ANNUAL REPORTS

Paragraph 38 of the agreement requires the agreement holder to prepare an annual report in accordance with the Forest Management Manual. The committee found the Company had submitted an annual report by the due date in accordance with the manual in each year of the agreement. No significant errors were found by the D.C.R. and no reports were returned for corrections - an admirable record. The area of silvicultural treatment reported was verified by the review committee by a planimetry of sample projects. It was found to be accurate for the last two years, but slightly to considerably conservative during the first three years.

2.8 INTEGRATION WITH OTHER FOREST USERS

Section 8 of the ground rules, entitled Management For Other Uses, details how other forest users were to be identified and

accommodated during the first five-year term. It was the responsibility of the Ministry to identify these areas and make prescriptions to accommodate other forest users. The Company was to implement the Ministry's prescriptions, so as to protect those other forest values.

The committee was impressed with the sincerity of Company efforts to accommodate other forest users. The many lakes in the area provide opportunities for tourism, and the Company has not only attended tourist associated meetings but also has become quite comfortable in direct negotiations with individual outfitters.

The Company has worked hard at eliminating inadvertent infractions of modified management area (MMA) prescriptions; much time has been spent explaining regulations to contractors so that they will understand the importance of following them. The result has been a record of very few violations of regulations related to MMA's or to additional regulations protecting other users.

The review committee was pleased with the spirit of cooperation that exists between staff of the Ministry and the Company. This cooperation routinely results in the swift and amicable resolution of land use issues in the management of the Seine River Forest. The Company and Ministry staff credited their harmonious relationship to:

- the staff continuity of both parties (especially that of the D.C.R.)
- the knowledge and familiarity of both parties with field conditions on the forest, and
- a mutual respect for each others professional integrity.

Any potential negative impacts of roads on other users have been minimized by following Ministry guidelines concerning road location. Water crossings were few due to these guidelines and the nature of the topography. No bridges were built on F.M.A. roads and only in a few places were large culverts needed. Field inspection by the committee revealed good placement of culverts. Approaches were usually well covered with vegetation.

The block system of management has impressed other forest users and has greatly simplified the process of accommodating their concerns. Most moose habitat requirements were met by reducing the size and by increasing the dispersion of clearcut. In only a few cases, where larger blocks were cut due to the presence of overmature timber (e.g. the Meggisi area), travel corridors of standing trees were required to be left for moose through the cut area.

Nests of eagles, ospreys and herons were located and surrounding timber stands set aside from cutting, according to Ministry guidelines.

Few mining problems have occurred.

3. MAINTENANCE OF PRODUCTIVITY

Table 2 shows the maximum depletion (allowable cut) which was calculated for the Seine River Forest at the beginning of the five-year term under review.

It indicates that the level of harvest and other forest depletions was well below the maximum allowed under sustained yield management for all working groups. Seventy-eight percent of the area harvested during the five-year operating period received a regeneration treatment; the remaining area is fresh cut-over currently in the process of receiving treatment. There

were no areas eligible for free-to-grow assessment during the term under review but many areas currently treated will become free-to-grow in the next five-year term.

Table 2

SEINE RIVER FOREST FMA 501200

Comparison of the 1982-1987 Maximum Allowable Depletion, total depletion, harvest and regeneration activities and the 1987-1992 Maximum Allowable Depletion. (Ministry Phase-In operations included.)

Working Group/or Forest Unit	1982-1987 Maximum Allowable Depletion	Total Depletion	Harvest Cut	Regeneration Total	1987-1992 Maximum Allowable Depletion
Spruce X	1,925	1,235	825		1,849
Spruce 2	2,392	1,890	1,358		2,312
Balsam Fir	805	420	307		750
Jack pine	7,588	4,513	2,803	N/A	7,377
Red pine	0	22	16		200
White pine	38	15	11		36
Other conifer	104	8	6		
Poplar	5,707	1,273	902		5,711
White birch	3,123	480	346		3,213
Total	21,682	9,856	6,574	5,155	21,448

The review committee observed some regeneration failures that occurred in the early years of the agreement, but were satisfied with the results of the past few years. The Company is currently retreating these understocked areas at its own expense and has an aggressive regeneration program to ensure acceptable stocking in the future. It was obvious that the Company is deeply committed to regenerating cutovers on the Seine River Forest.

4. COMPANY CONCERNS

The Company was provided the opportunity to express any concerns that it might have with the Seine River Forest FMA 501200 or with regard to the Ministry's administration of the agreement. The following are the concerns as expressed by senior management of Boise Cascade Canada Limited:

1. Nursery Stock Availability

The Company is very concerned about the low numbers of nursery stock currently made available for regeneration programs on the Seine River and Manitou Forests. These F.M.A.'s currently receive sufficient stock to treat only 20% of the area harvested.

Recently approved Timber Management Plans (1987-92) indicate that 40-45% of the area harvested should be planted to properly treat the component of "high competition" mixed wood sites found on these forests.

2. Substandard Planting Stock

In recent years, the stock received by the Company has often fallen short of the stock parameters stipulated in the ground rules. These deficiencies are often made known to the Company less than a month before planting is to begin. Under such circumstances, planting contracts are already in place, areas are site prepared and the Company has little option but to accept the substandard stock, if it is healthy. In accepting stock under these circumstances, the ground rules indicate that the Company assumes all retreatment costs if failure occurs. The Company feels that where Ministry nurseries produce substandard stock, the Ministry should assume all retreatment costs where later

failure can be attributed to initial stock quality.

3. Crown Management Unit (C.M.U.) Programs

The Boise Cascade Canada Fort Frances mill depends on Crown Management Units in its wood supply area for approximately 35% of its total mill volume on an annual basis. In recent years, as regeneration programs on the Seine River and Manitou Forests have expanded to required levels, the Crown Unit programs have been severely constrained. For example, in 1987, F.M.A. aerial tending programs were fully funded while similar programs on adjacent Crown Units were not funded. The Company is very concerned with this trend and urges the Ministry to provide for the necessary levels of forest regeneration on both Crown and F.M.A. units to sustain long-term wood supplies in the Fort Frances area.

5. CONCLUSIONS AND RECOMMENDATIONS

The review committee was satisfied that the obligations of the Company under the agreement have been satisfactorily performed by the Company during the five-year term under review and notes that the Company and the Ministry have agreed to a management plan and ground rules for the second five-year term. The committee was impressed by the amount of effort put forth by the Company with regard to its silvicultural program and with the commitment of the Company and its staff towards a successful Seine River Forest.

RECOMMENDATION No. 1: That the Minister extend the remaining period of FMA 501200 by a further term of five consecutive years to March 31st, 2007.

RECOMMENDATION No. 2: That the Company and the Ministry jointly review the treatable status of lands cutover during this five-year term for which Table 1 of the ground rules specifies treatment but which have received no treatment or plans for treatment, and that the Company report any areas mutually agreed to be non-treatable in the 1988-89 annual report.

RECOMMENDATION No. 3: That in the event the Company should forecast harvest levels during the second five-year term to fall below the 90% level of those stated in the current plan, the Company should take immediate action to request, with reasonable explanation, an undercut variation from the Minister and to amend its management plan with a further surplus declaration.



Five-Year Review

Boise Cascade Canada Limited

**Manitou Forest
Agreement 501300
1982-1987**



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1. INTRODUCTION

1.1 PURPOSE OF THE REVIEW

The Minister of Natural Resources and Boise Cascade Canada Limited signed a Forest Management Agreement (FMA) on the Manitou Forest near Fort Frances on March 30th, 1983. The purpose of this agreement was to provide for a continuous supply of forest products to the Company's mill at Fort Frances and to ensure that the forests of the Manitou Forest are harvested and regenerated to produce successive crops of timber on a sustained yield basis.

This fifth-year review was conducted on the Manitou Forest to determine whether the obligations of the Company under the agreement have been satisfactorily performed and to recommend to the Minister of Natural Resources whether the remaining period of the agreement should be extended by a further term of five years.

1.2 THE REVIEW COMMITTEE

The review was carried out by a committee of three, engaged by the Ministry of Natural Resources for this purpose. The three committee members were:

- Mr. G.W. Bell, R.P.F., Vice-President Woodlands (Retired) Spruce Falls Power and Paper Company Ltd., Committee Chairman
- Mr. R.A. Baxter, Director of Operations, Northern Ontario, Ministry of Natural Resources (Retired), and
- Dr. H.G. Cumming, Professor, Fish and Wildlife Management, School of Forestry, Lakehead University.

1.3 TASKS OF THE REVIEW COMMITTEE

The Review Committee's assignment was to undertake a fair and objective review of Boise Cascade Canada Ltd. performance on the Manitou Forest during its first five-year term vis-a-vis its obligations under the forest management agreement and to make recommendations to the Minister of Natural Resources on the extension of the agreement's term according to the "Evergreen" section of the agreement.

The review was conducted by:

- examining the management plans, operating and annual plans and the annual reports prepared by the Company with regard to their submission dates and their acceptability to the Ministry,
- inspecting the depletion records, silvicultural records and access road maps for adequacy and for conformity with the management plans and the ground rules,
- comparing the levels of harvest and treatment of not satisfactorily regenerated (N.S.R.) lands in the annual reports with those required by provisions of the agreement,
- selecting and field inspecting harvest cuts and silvicultural projects typical of the techniques employed on the forest for conformity with the agreement holder's records and for field application of the ground rules,
- determining the degree to which other forest users and other forest values are accommodated in management planning and in field operations, and

- meeting with Company and Ministry district staff to identify problem areas and agreement concerns on the part of either party.

2. PROCEDURES AND FINDINGS

2.1 MANAGEMENT PLANNING

2.1.1 THE PREPARATION OF PLANS

Paragraphs 6 (1), 10 (1), 11 (1) and 15 (1) of the agreement require the Company to prepare management and operating plans and a series of annual plans. These plans must be prepared according to the timeframes specified in the agreement and according to the manual that has been approved by the Minister for this purpose.

The forest management agreement was signed on March 30th, 1983 and the management plan was due 12 months later. The plan was submitted on March 30th, 1984 and received final approval on November 16th, 1984.

The operating plan for the 1982 to 1987 period was due September 30th, 1983. An extension was given by the Ministry until November 30th, 1983. The plan was submitted prior to that date and was approved on April 27th, 1984.

For the first year of the agreement operations were carried out under Parcel 1, Schedule A, Licence 326700, and Part of Schedule C, Licence 326700. The annual plans for the remainder of the years under review were submitted by the due dates. The plans for 1983/1984 and 1984/1985 were returned to the Company for minor alterations and were resubmitted by the required dates. The plans for 1985/1986 and 1986/1987 did not require returning to the Company for alterations.

The Company has prepared a management plan for the second five-year term in accordance with the new and more complex Timber Management Planning Manual For Crown Lands in Ontario. The new plan was submitted prior to the due date of October 31st, 1986.

In conclusion, the Company met its management planning obligations for the 20-year management plan, the five-year operating plan, and the annual plans. The Ministry was complimentary to the Company on the quality of its management planning.

2.1.2 PLAN IMPLEMENTATION

The agreement requires that the Company conduct its operations in accordance with the approved management, operating and annual plans. The accomplishments of the Company in silviculture and road construction are summarized in Table 1.

The review committee examined the harvest cut and road construction records of the Company and found them to be generally in conformity with the areas allocated for harvest and road locations specified in the management documents. At least six deviations from the approved cutting areas were recorded and resulted in charges under the Crown Timber Act. Other deviations were considered to be inconsequential. Amendments to the plans were requested both in harvest allocation and road locations and were given approval by the Ministry. The levels of harvest and access construction during the five years were lower than those specified in the plans as portrayed in Figure 1.

Reasons for the low level of harvest are provided in Section 2.3 and for road construction in Section 2.5 of this report.

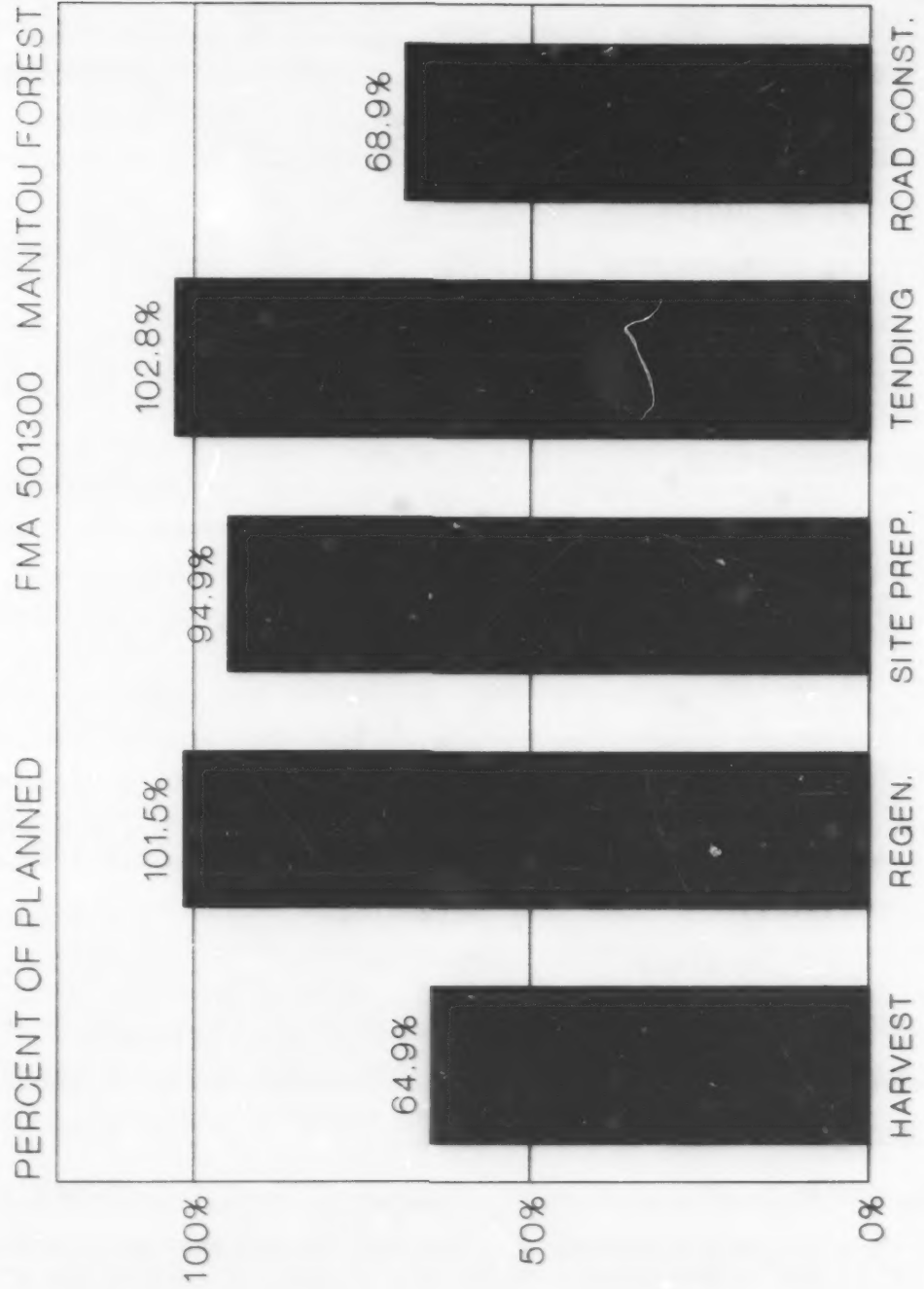
TABLE 1
Summary of the Company's forest operations at Ministry expense
for 1982-87.

FMA EXPENDITURE AND ACCOMPLISHMENT REPORT FOR THE FIVE YEAR TERM 1982-87	FMA 501300 MANITOU FOREST BOISE CASCADE CANADA LTD.
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ACTIVITY	HECTARES	DOLLARS
HARVEST CUT	11,654	
NATURAL REGENERATION	115	
ARTIFICIAL REGENERATION		
PLANTING BAREROOT	57	
PLANTING CONTAINER	2,182	
SEEDING DIRECT	6,402	
SEEDING WITH SITE PREP	732	
TOTAL ARTIFICIAL	9,373	
TOTAL REGENERATION	9,488	
TENDING		
CHEMICAL CLEANING/AERIAL	3,241	
CHEMICAL CLEANING/GROUND	0	
OTHER TENDING	0	
TOTAL TENDING	3,241	
SITE PREPARATION		
MECHANICAL	8,802	
CHEMICAL	583	
PRESCRIBED BURN	0	
TOTAL SITE PREPARATION	9,385	
MNR SILVICULTURE PAYMENTS		2,178,308
ROAD CONSTRUCTION	KILOMETRES	DOLLARS
PRIMARY	59.5	
SECONDARY	48.6	
TOTAL CONSTRUCTION	108.1	3,520,423
ROAD MAINTENANCE	257.4	114,900
MNR TOTAL ROAD PAYMENTS		3,365,323
TOTAL PAYMENTS		5,543,631

N.B. This table represents activities carried out by the Company, and the associated costs to MNR. As part of the MNR obligation under the Agreement, Forest Management Activities were also conducted by MNR, at additional expense.

FIGURE 1: COMPARISON OF OPERATING PLAN vs ACTUAL



2.2 THE GROUND RULES

2.2.1 KNOWLEDGE AND FAMILIARITY WITH THE GROUND RULES AND THE AGREEMENT

Based on the discussions held with Company, both in the office and field, it was apparent to the review committee that the Company staff were knowledgeable and familiar with the provisions of the ground rules and the agreement.

2.2.2 CONFORMITY OF HARVEST AND SILVICULTURAL OPERATIONS WITH THE GROUND RULES

The committee's examination of the silvicultural records, its field inspections and its discussion with the designated Crown representative (D.C.R.) all confirmed that harvesting and silvicultural operations have been conducted in accordance with the ground rules. The ground rules do provide for deviations from the silvicultural techniques laid out in Table 1 of the ground rules; new silvicultural techniques were proposed by the Company in its annual plans and these were approved by the Ministry prior to implementation.

The committee notes that the ground rules permit the classification of non-treatable sites by mutual agreement. Any area may be classed as non-treatable where extremes in topography, shallowness of soil, excessive rock, poor drainings or inaccessibility make it uneconomic or impractical to treat. Non-treatable areas were to be identified in the annual plan, prior to harvest if possible, and included as depletions in the annual report following harvest. To date, no areas have been classified as non-treatable on the Manitou Forest despite the fact that nearly 12,000 hectares (ha) have been harvested.

The review committee is concerned that non-treatable areas may have been overlooked by both parties and that a failure to classify them today will result in disputed retreatment obligations.

RECOMMENDATION: That the Company and the Ministry jointly review the treatable status of lands cut-over during the five-year term for which Table 1 of the ground rules specifies treatment but which have received no treatment or plans for treatment, and that the Company report any areas mutually agreed to be non-treatable in the 1988-89 annual report.

2.2.3 CONFORMITY OF INVOICING PRACTICES WITH THE GROUND RULES

The invoicing procedures of the Company were found to be in conformity with those specified in the ground rules. Any difference in hectares treated, number of trees planted, or kilometres of road constructed or maintained were reconciled between the Company representative and the D.C.R.

2.2.4 THE PREPARATION OF THE NEW GROUND RULES

The forest management agreement with the Company requires both parties to commence the preparation of new ground rules for the next five-year term at least eight months prior to the expiry of the old ground rules and to agree upon those ground rules on or before that expiry date. The committee notes that this obligation has been met and that the new ground rules were agreed to by March 31st, 1987.

2.3 HARVEST LEVELS AND ALLOWABLE CUT

According to paragraph 20 (1) of the agreement, the Company has agreed to maintain its harvest level on the Manitou Forest at a level between 90% and 110% of the calculated allowable cut for each working group during each five-year term. The Company may request the Minister to authorize variations to those levels specified in the agreement.

Paragraphs 20 (3) and 20 (4) of the agreement provide for either remedy or liquidated damages in the event of an overcut or undercut, respectively, on the area under agreement. The agreement holder may avoid liquidated damages through the declaration of timber surplus to his needs in an approved management plan; however, liquidated damages do not apply in the first five-year term of a forest management agreement.

The Company met its harvesting obligations in the Balsam Fir working group as harvesting was concentrated in areas being decimated by the spruce budworm. However it did not meet its obligations in the remaining working groups during its first five-year term. The level of undercut was evident in some of the working groups by mid-term but no request for variation of the 90% harvest was made to the Minister. Figure 2 shows a comparison of the actual cut for the five-year term with the allowable cut, for all working groups combined.

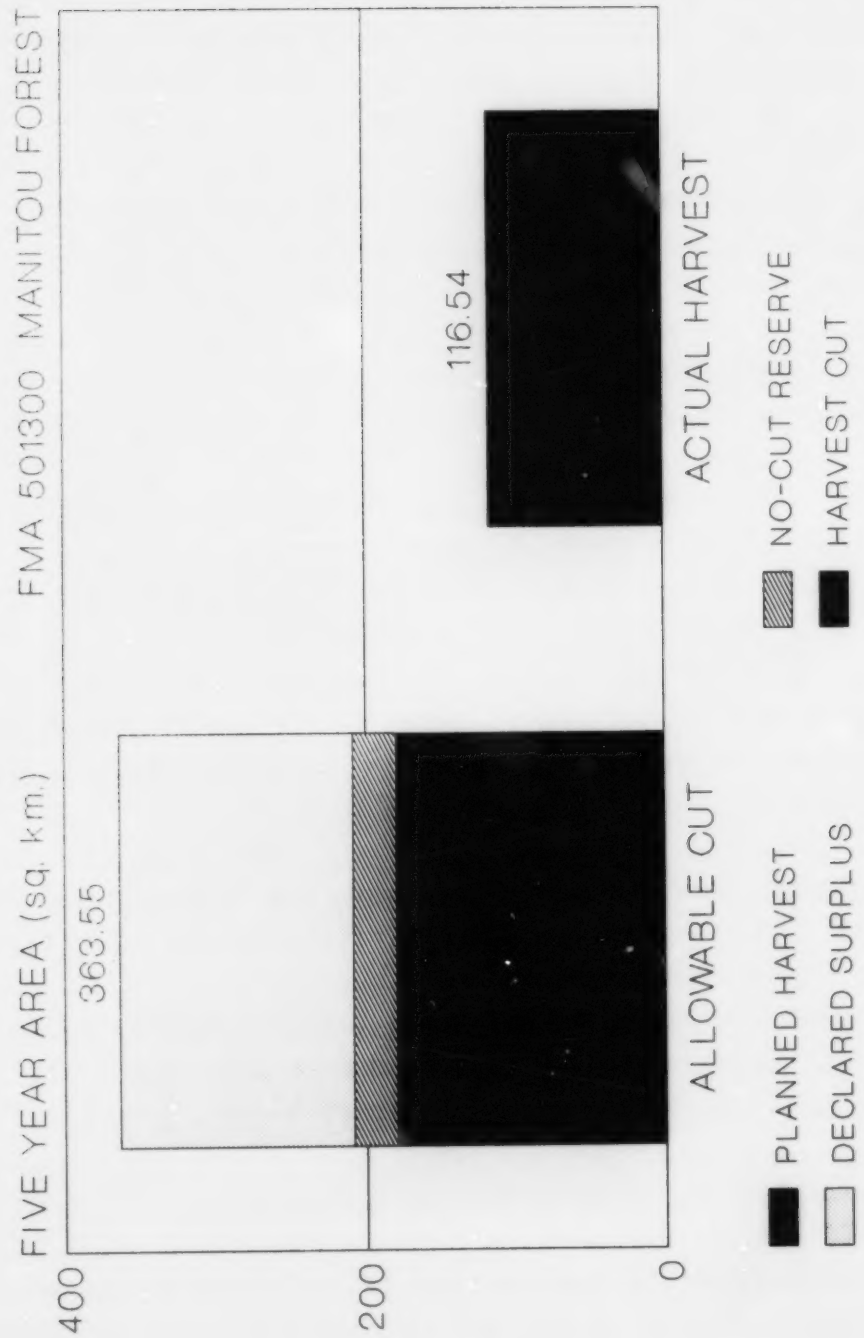
The Company failed to utilize its planned level of harvest because of reduced mill production as a result of a reduction in market demand for its products.

RECOMMENDATION: That in the event the Company should forecast harvest levels during the second five-year term to fall below the 90% level of those stated in the current plan, the Company should take immediate action to request, with reasonable explanation, an undercut variation from the Minister and to amend its management plan with a further surplus declaration.

2.4 N.S.R. OBLIGATIONS

Under provisions of the agreement, the Company has an obligation to reforest N.S.R. lands at the rate of 5% of class 2 and 3 N.S.R. lands annually. This amounts to 589 ha in the five-year term under review. The Company completed 5869 ha or 10 times

FIGURE 2: COMPARISON OF ALLOWABLE CUT, ALLOCATION, AND HARVEST



its obligated commitment according to the agreement. This level of achievement results in part from the crediting of the treatment of other unregenerated backlog not included in the original N.S.R. survey. The Company is to be commended for the initiative it has shown in putting N.S.R. lands back into production as seen in Figure 3.

RECOMMENDATION: That the Minister acknowledge the fulfilment of the Company's N.S.R. treatment obligations for the entire period of the 20-year agreement.

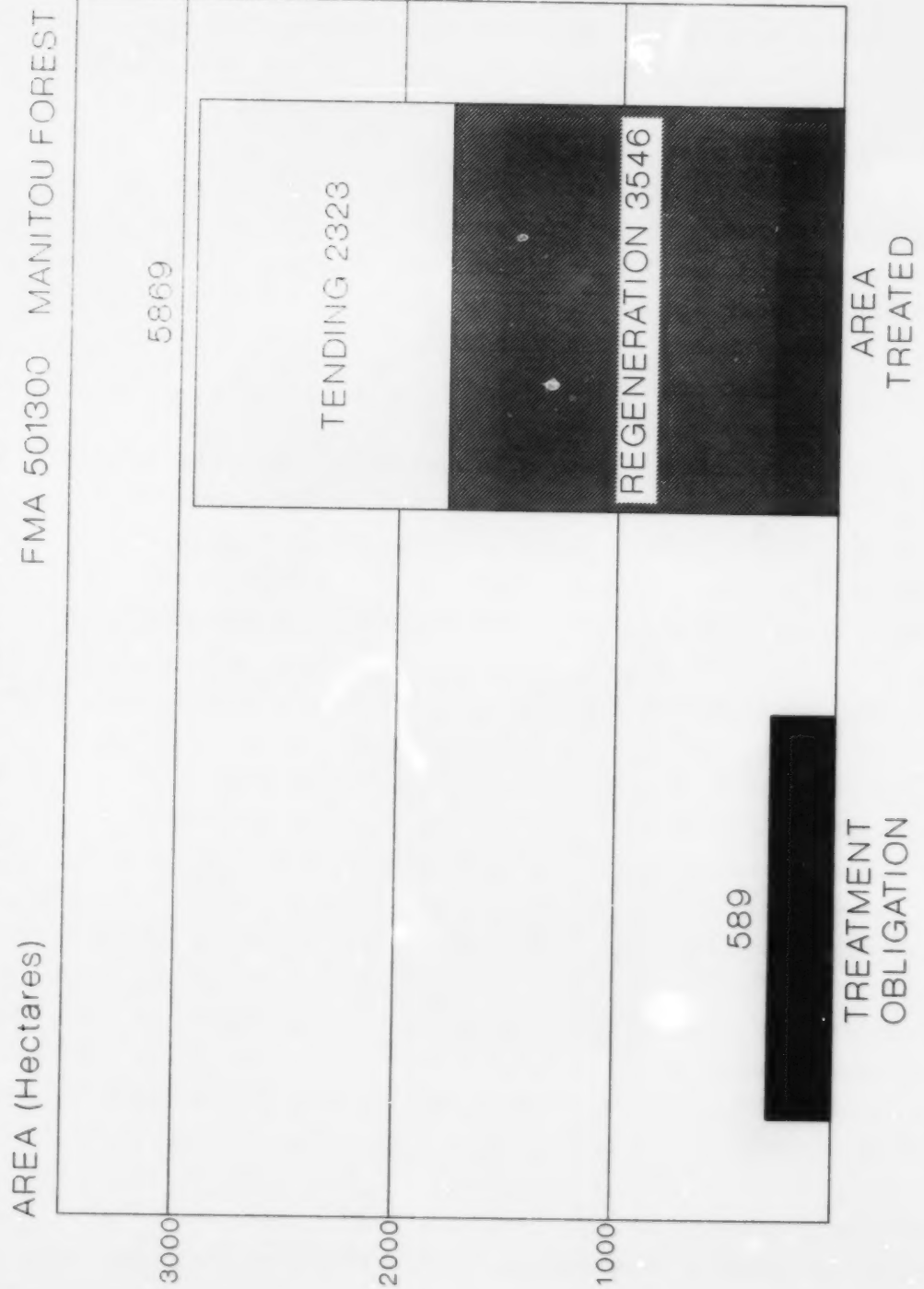
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On the Manitou Forest most primary roads had already been built prior to the FMA agreement. New construction included a primary road extension to the Cedar Narrows road and secondary roads off Highway 502. Completed roads are inspected jointly by the Ministry district senior operations technician and a Company representative prior to acceptance for final payment. The Company had constructed its roads to standards higher than those specified in Schedule "E" (e.g. primary road load capacity 160,000 lbs. vs. the Schedule "E" requirement of 158,000 lbs.; secondary road minimum travel surface 16 feet vs. 13 feet). In no case during the term under review has a road been judged to be substandard.

Figure 1 shows that the level of road construction was lower than that planned. Reasons for the reduction included (1) reduced harvest related to mill cutbacks, (2) decision not to build roads

**FIGURE 3: COMPARISON OF NSR TREATMENT OBLIGATION
AND NSR TREATMENT, 1982-87**



beyond current cut, (3) in some cases additional roads built as unfunded tertiary roads rather than funded secondary roads and (4) delays in operations due to problems with third party agreements.

2.6 COMPANY RECORDS

The committee found that the Company's records concerning the documentation of submission, resubmission, approvals and amendments of its management documents were kept in a manner that allowed for easy reconciliation with the requirements of the agreement. Silvicultural records are catalogued by numbers assigned to management blocks marked on mylar maps. Each treatment is detailed on an appropriate form and the forms collected into record books. All records were readily available. In 1985 the Company began a new system of electronic record keeping and is now transferring its records to this format.

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Paragraph 38 of the agreement requires the agreement holder to prepare an annual report in accordance with the Forest Management Manual. The committee found the Company had submitted an annual report by the due date in accordance with the manual in each year of the agreement. No significant errors were found by the D.C.R. and no reports were returned for corrections - an admirable record. The area of silvicultural treatment reported was verified by the review committee by planimetry of sample projects. It was found to be accurate for the last two years, but slightly to considerably conservative during the first three years.

2.8 INTEGRATION WITH OTHER FOREST USERS

Section 8 of the ground rules, entitled Management For Other Uses, details how other forest users were to be identified and accommodated during the first five-year term. It was the responsibility of the Ministry to identify these areas and make prescriptions to accommodate other forest users. The Company was to implement the Ministry's prescriptions, so as to protect those other forest values.

The committee was impressed with the sincerity of Company efforts to accommodate other forest users. The many lakes in the area provided opportunities for tourism, and the Company has not only attended tourist associated meetings but also has become quite comfortable in direct negotiations with individual outfitters. Many tourism concerns occur on the Manitou Forest F.M.A. area, thus individual negotiations have been frequent. In one instance the Company agreed with an individual operator to do as much cutting as possible during winter and not to cut during the high tourist season. The tourist operator in return agreed not to fly in guests after a specified date so that cutting could proceed. This kind of direct negotiation has minimized conflicts. The Company has worked hard at eliminating inadvertent infractions of modified management area (MMA) prescriptions: much time has been spent explaining regulations to contractors so that they will understand the importance of following them. The result has been a record of very few violations of regulations related to MMA's or to additional regulations protecting other users.

The review committee was very pleased with the spirit of cooperation that exists between staff of the Ministry and the Company. This cooperation routinely results in the swift and amicable resolution of land use issues in the management of the

Manitou Forest. The Company and Ministry staff credited their harmonious relationship to:

- the staff continuity of both parties (especially that of the D.C.R.)
- the knowledge and familiarity of both parties with field conditions on the forest, and
- a mutual respect for each others professional integrity.

Any potential negative impacts of roads on other users have been minimized by following Ministry guidelines concerning road location. Water crossings were few due to the localized nature of the small drainage areas. No bridges were built on F.M.A. roads and all culverts were small and well handled.

The block system of management has greatly simplified the process of accommodating the concerns of other forest users. Most moose and deer habitat requirements were met by reducing the size and by increasing the dispersion of clearcut. In only a few cases, where larger blocks were cut due to the presence of overmature timber, travel corridors of standing trees were required to be left for moose and deer through the cut area. Nests of eagles, ospreys and herons were located and surrounding timber stands set aside from cutting, according to Ministry guidelines.

Few mining problems have occurred.

3. MAINTENANCE OF PRODUCTIVITY

Table 2 shows the maximum allowable depletion (allowable cut) which was calculated for the Manitou Forest at the beginning of the five-year term under review. It indicates that the level of harvest and other forest depletions was well below the maximum

Table 2

MANITOU FOREST FMA 501300

Comparison of the 1982-1987 Maximum Allowable Depletion, total depletion, harvest and regeneration activities and the 1987-1992 Maximum Allowable Depletion. (Ministry Phase-In operations included.)

Working Group/or Forest Unit	1982-1987 Maximum Allowable Depletion	Total Depletion	Harvest Cut	Regeneration Total	1987-1992 Maximum Allowable Depletion
Spruce X	2,937	1,446	1,166		2,832
Spruce 2	2,446	1,886	1,519		2,290
Balsam Fir	3,212	2,455	2,011		2,912
Jack pine	8,055	5,474	4,632	N/A	7,941
Red pine	96	0	0		32
White pine	585	135	122		594
Other conifer	734	16	15		754
Poplar	13,302	2,307	1,868		13,440
White birch	4,988	415	351		5,206
Total	36,355	14,134	11,684	10,956	36,001

allowed under sustained yield management for all working groups. Ninety-four percent of the area harvested during the five years received a regeneration treatment, the remaining area is fresh cutover. There were no areas assessed as free-to-grow.

The Company is to be commended for its initiative at treating such a high percentage of harvested land. However the review committee observed some regeneration failures that occurred in the early years of the agreement but were satisfied with the results of the past few years. The Company is currently

retreating these understocked areas at its own expense and has an aggressive regeneration program to ensure acceptable stocking in the future. It was obvious that the Company is deeply committed to regenerating cutovers on the Manitou Forest.

4. COMPANY CONCERNS

The Company was provided the opportunity to express any concerns that it might have with the Manitou Forest FMA 501300 or with regard to the Ministry's administration of the agreement.

The following are the concerns as expressed by senior management of Boise Cascade Canada Limited.

1. Nursery Stock Availability

The Company is very concerned about the low numbers of nursery stock currently made available for regeneration programs on the Manitou and Seine River Forests. These F.M.A.'s currently receive sufficient stock to treat only 20% of the area harvested. Recently approved Timber Management Plans (1987-92) indicate that 40-45% of the area harvested should be planted to properly treat the component of "high competition" mixed wood sites found on these forests.

2. Substandard Planting Stock

In recent years, the stock received by the Company has often fallen short of the stock parameters stipulated in the ground rules. These deficiencies are often made known to the Company less than a month before planting is to begin. Under such circumstances, planting contracts are already in place, areas are site prepared and the Company has little option but accept the substandard stock, if it is healthy. In accepting stock under these circumstances, the ground rules indicate that the Company assumes all retreatment

costs if failure occurs. The Company feels that where Ministry nurseries produce substandard stock, the Ministry should assume all retreatment costs where later failure can be attributed to initial stock quality.

3. Crown Management Unit (C.M.U.) Programs

The Boise Cascade Canada Fort Frances mill depends on Crown Management Units in its wood supply area for approximately 35% of its total mill volume on an annual basis. In recent years, as regeneration programs on the Manitou and Seine River Forests have expanded to required levels, the Crown Unit programs have been severely constrained. For example, in 1987, F.M.A. aerial tending programs were fully funded while similar programs on adjacent Crown Units were not funded. The Company is very concerned with this trend and urges the Ministry to provide for the necessary levels of forest regeneration on both Crown and F.M.A. units to sustain long-term wood supplies in the Fort Frances area.

5. CONCLUSIONS AND RECOMMENDATIONS

The review committee was satisfied that the obligations of the Company under the agreement have been satisfactorily performed by the Company during the five-year term under review and notes that the Company and the Ministry have agreed to a management plan and ground rules for the second five-year term. The committee was impressed by the amount of effort put forth by the Company with regard to its silvicultural program and with the commitment of the Company and its staff towards a successful Manitou Forest.

RECOMMENDATION NO. 1: That the Minister extend the remaining period of FMA 501300 by a further term of five consecutive years to March 31st, 2007.

RECOMMENDATION No. 2: That the Company and the Ministry jointly review the treatable status of lands cutover during this five-year term for which Table 1 of the ground rules specifies treatment but which have received no treatment or plans for treatment, and that the Company report any areas mutually agreed to be non-treatable in the 1988-89 annual report.

RECOMMENDATION No. 3: That in the event the Company should forecast harvest levels during the second five-year term to fall below the 90% level of those stated in the annual plan, the Company should take immediate action to request, with reasonable explanation, an undercut variation from the Minister and to amend its management plan with a further surplus declaration.

RECOMMENDATION No. 4: That the Minister acknowledge the fulfilment of the Company's N.S.R. treatment obligations for the entire period of the 20-year agreement.

Five-Year Review

Waferboard Corporation Limited

**Romeo Malette Forest
Agreement 501400
1982-1987**

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1. INTRODUCTION

1.1 PURPOSE OF THE REVIEW

The Minister of Natural Resources and Waferboard Corporation Limited signed a Forest Management Agreement (FMA) on the Romeo Malette Forest located near Timmins on February 21st, 1983. The purpose of that agreement was to provide for a continuous supply of forest products to the wood processing plants of the Company at Timmins and to ensure that the forests of the Romeo Malette Forest are harvested and regenerated to provide successive crops of timber on a sustained yield basis.

This fifth-year review was conducted on the Romeo Malette Forest to determine whether the obligations of the Company under the agreement have been satisfactorily performed and to recommend to the Minister of Natural Resources whether the remaining period of the agreement should be extended by a further term of five years.

1.2 THE REVIEW COMMITTEE

The review was carried out by a committee of three, engaged by the Ministry of Natural Resources for this purpose. The three committee members were:

- Mr. R. A. Baxter, Director of Operations, Northern Ontario, Ministry of Natural Resources (Retired), Committee Chairman,
- Mr. G. W. Bell, R.P.F., Vice-President Woodlands, Spruce Falls Power and Paper Company Ltd. (Retired), and
- Dr. H. G. Cumming, Professor, Fish and Wildlife Management, School of Forestry, Lakehead University.

1.3 TASKS OF THE REVIEW COMMITTEE

The review committee's assignment was to undertake a fair and objective review of the Waferboard Corporation Limited performance on the Romeo Malette Forest during its first five-year term vis-a-vis its obligations under the forest management agreement, and to make recommendations to the Minister of Natural Resources on the extension of the agreement's term according to the "Evergreen" section of the agreement.

The review was conducted by:

- examining the management plans, operating and annual plans and the annual reports prepared by the Company with regard to their submission dates and their acceptability to the Ministry,
- inspecting the depletion records, silvicultural records and access road maps for adequacy and for conformity with management plans and the ground rules,
- comparing the levels of harvest and treatment of not satisfactorily regenerated (N.S.R.) lands in the annual reports with those required by provisions of the agreement,
- selecting and field inspecting harvest cuts and silvicultural projects typical of the techniques employed on the forest for conformity with the agreement holder's records and for field application of the ground rules,
- determining the degree to which other forest users and other forest values are accommodated in management planning and in field operations, and

meeting with Company and Ministry district staff to identify problem areas and agreement concerns on the part of either party.

2. PROCEDURES AND FINDINGS

2.1 MANAGEMENT PLANNING

2.1.1 THE PREPARATION OF PLANS

Paragraphs 6(1), 10(1), 11(1), and 15(1) of the agreement require the Company to prepare management and operating plans and a series of annual plans. These plans must be prepared according to the manual that has been approved by the Minister for this purpose.

The forest management agreement was signed on February 21st, 1983 and the management plan was due 12 months later. The plan was submitted by the Company on March 19th, 1984 after receiving a one month extension to the original due date. The plan was found to be incomplete and was returned to the Company for alterations. The final plan was submitted by the Company one month late and it received final approval on September 30th, 1985.

The operating plan for the 1982 to 1987 period was due August 21st, 1983. An extension to October 1st, 1983 was given for the submission of the plan and it was submitted on November 18th, 1983. The workload requirements of the Company in establishing its forestry program at the same time as preparing the operating plan resulted in the delay in the plan submission. Alterations were requested by the Ministry and due dates for submission of the altered plan were set. These dates were met by the Company.

As the agreement was not signed until February 21st, 1983 there was no annual plan for the 1982/83 year. The annual plan for the second year was submitted February 22nd, 1983. The plans for the

third and fifth year were submitted on time while the plan for the fourth year was submitted December 12th, 1984. The annual plans for 1984/85, 1985/86 and 1986/87 were returned to the Company a number of times for alterations and corrections. Final approvals were given on March 2nd, 1985, May 10th, 1986 and March 25th, 1987 respectively.

The Company has prepared a management plan for the second five year term in accordance with the new and more complex Timber Management Planning Manual For Crown Lands In Ontario. The new plan was submitted by the due date of October 1st, 1986.

In conclusion the Company was found to have been late in meeting its management planning obligations for the 20-year management plan, the five-year operating plan and for the 1985/86 annual plan, and to have submitted annual plans which required a number of resubmissions before satisfying the designated Crown representative (D.C.R.).

RECOMMENDATION: That the Company initiate a review of its management planning policies and procedures to ensure that all obligations under the agreement and all requirements of the Timber Management Planning Manual For Crown Lands In Ontario, especially due dates and data, are met.

2.1.2 PLAN IMPLEMENTATION

The agreement requires that the Company conduct its operations in accordance with the approved management, operating and annual plans. The accomplishments of the Company in silviculture and road construction are summarized in Table 1.

The review committee examined the harvest cut and road construction records of the Company and found them to be generally in conformity with the areas allocated for harvest and

TABLE 1

Summary of the Company's forest operations at Ministry expense for 1982-87.

FMA EXPENDITURE AND ACCOMPLISHMENT REPORT FOR THE FIVE YEAR TERM 1982-87	FMA 501400 ROMEO MALETTE FOREST WAFFERBOARD CORPORATION LTD.
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ACTIVITY	HECTARES	DOLLARS
HARVEST CUT	12,018	
NATURAL REGENERATION	2,993	
ARTIFICIAL REGENERATION		
PLANTING BAREROOT	2,413	
PLANTING CONTAINER	1,426	
SEEDING	0	
TOTAL ARTIFICIAL	3,839	
TOTAL REGENERATION	6,832	
TENDING		
CHEMICAL CLEANING/AERIAL	2,280	
CHEMICAL CLEANING/GROUND	0	
OTHER TENDING	77	
TOTAL TENDING	2,357	
SITE PREPARATION		
MECHANICAL	4,718	
CHEMICAL	305	
PRESCRIBED BURN	1197	
TOTAL SITE PREPARATION	6,220	
MNR SILVICULTURE PAYMENTS		2,769,136
ROAD CONSTRUCTION	KILOMETRES	DOLLARS
PRIMARY	195.4	
SECONDARY	169.4	
TOTAL CONSTRUCTION	364.8	11,287,380
ROAD MAINTENANCE	542.8	242,068
MNR TOTAL ROAD PAYMENTS		11,529,448
TOTAL PAYMENTS		14,298,584

N.B. This table represents activities carried out by the Company, and the associated costs to MNR. As part of the MNR obligation under the Agreement, Forest Management Activities were also conducted by MNR, at additional expense.

the road locations specified in the management documents. The only deviations were considered to be of a minor and inconsequential nature. Amendments to the plans were requested both in harvest allocations and road locations and were given approval by the Ministry. The levels of harvest and access construction during the five years were lower than those specified while the level of silvicultural activity was above those specified in the plans, as portrayed in Figure 1. Reasons for the low level of harvest are provided in Section 2.3 and for road construction in Section 2.5 of this report.

2.2 THE GROUND RULES

2.2.1 KNOWLEDGE AND FAMILIARITY WITH THE GROUND RULES AND THE AGREEMENT

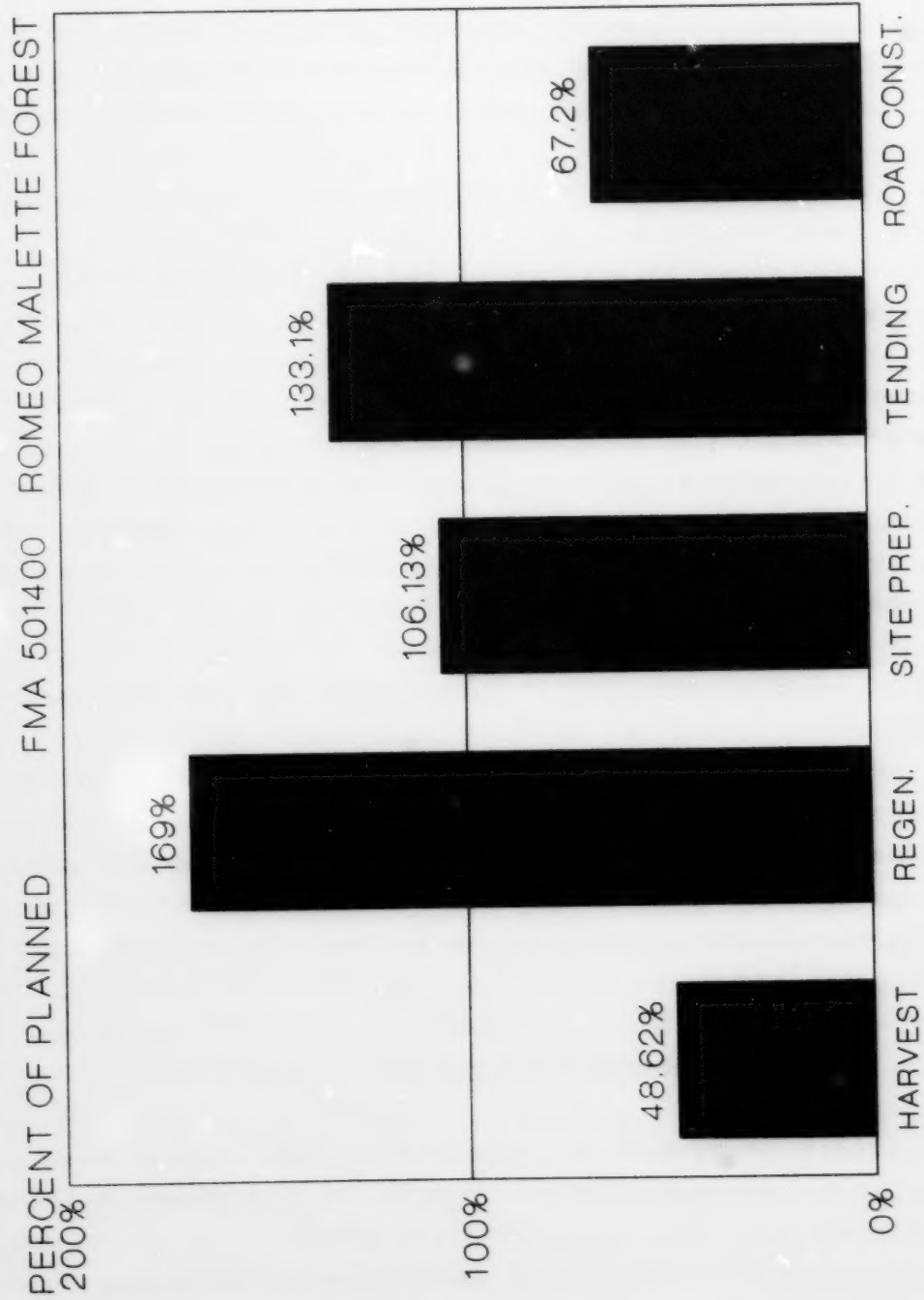
Based on the discussions held with the Company, both in the office and field, it was apparent to the review committee that the Company staff were knowledgeable and familiar with the provisions of the ground rules and the agreement.

2.2.2 CONFORMITY OF HARVEST AND SILVICULTURE OPERATIONS WITH THE GROUND RULES

The committee's examination of the silvicultural records, its field inspections and its discussion with the D.C.R. all confirmed that harvesting and silvicultural operations have been conducted in accordance with the ground rules. The ground rules do provide for deviations from the silvicultural techniques laid out in Table 1 of the ground rules; new silvicultural techniques were proposed by the Company in its annual plans and these were approved by the Ministry prior to implementation.

The committee notes that the ground rules permit the classification of non-treatable sites by mutual agreement. Any area may be classed as non-treatable where extremes in topography, shallowness of soil, excessive rock, poor drainage or inaccessibility make it uneconomic or impractical to treat.

FIGURE 1: COMPARISON OF OPERATING PLAN vs ACTUAL



Non-treatable areas were to be identified in the annual plan, prior to harvest if possible, and included as depletions in the annual report following harvest. To date no areas have been classified as non-treatable on the Romeo Malette Forest despite the fact that over 12,000 hectares (ha) have been harvested.

The review committee is concerned that non-treatable areas may have been overlooked by both parties and that a failure to classify them today will result in disputed retreatment obligations.

RECOMMENDATION: That the Company and the Ministry jointly review the treatable status of lands cut-over during the five-year term for which Table 1 of the ground rules specifies treatment but which have received no treatment or plans for treatment, and that the Company report any areas mutually agreed to be non-treatable in the 1988-89 annual report.

2.2.3 CONFORMITY OF INVOICING PRACTICES WITH THE GROUND RULES

The invoicing procedures of the Company were found to be in conformity with those specified in the ground rules. Any differences in hectares treated, number of trees planted, or kilometers of road constructed or maintained were reconciled between the Company representative and the D.C.R. prior to the submission of the invoice.

2.2.4 THE PREPARATION OF THE NEW GROUND RULES

The forest management agreement with the Company requires both parties to commence the preparation of new ground rules for the next five-year term at least eight months prior to the expiry of the old ground rules and to agree upon those ground rules on or before that expiry date. The committee notes that this obligation was not met. Preparation of the new ground rules

commenced May 6th, 1986, well in advance of the required date, however, they were not agreed to by March 31st, 1987, the expiry date of the existing ground rules. The Ministry agreed to the ground rules on May 21st, 1987 while the Company sent a letter of agreement to the Ministry on June 24th, 1987.

2.3 HARVEST LEVELS AND ALLOWABLE CUT

According to paragraph 20(1) of the agreement, the Company has agreed to maintain its harvest level on the Romeo Malette Forest at a level between 90% and 110% of the calculated allowable cut for each working group during each five-year term. The Company may request the Minister to authorize variations to those levels specified in the agreement. Paragraphs 20(3) and 20(4) of the agreement provide for either remedy or liquidated damages in the event of an overcut or undercut, respectively, on the area under agreement. The agreement holder may avoid liquidated damages through the declaration of timber surplus to his needs in an approved management plan; however, liquidated damages do not apply in the first five-year term of a forest management agreement.

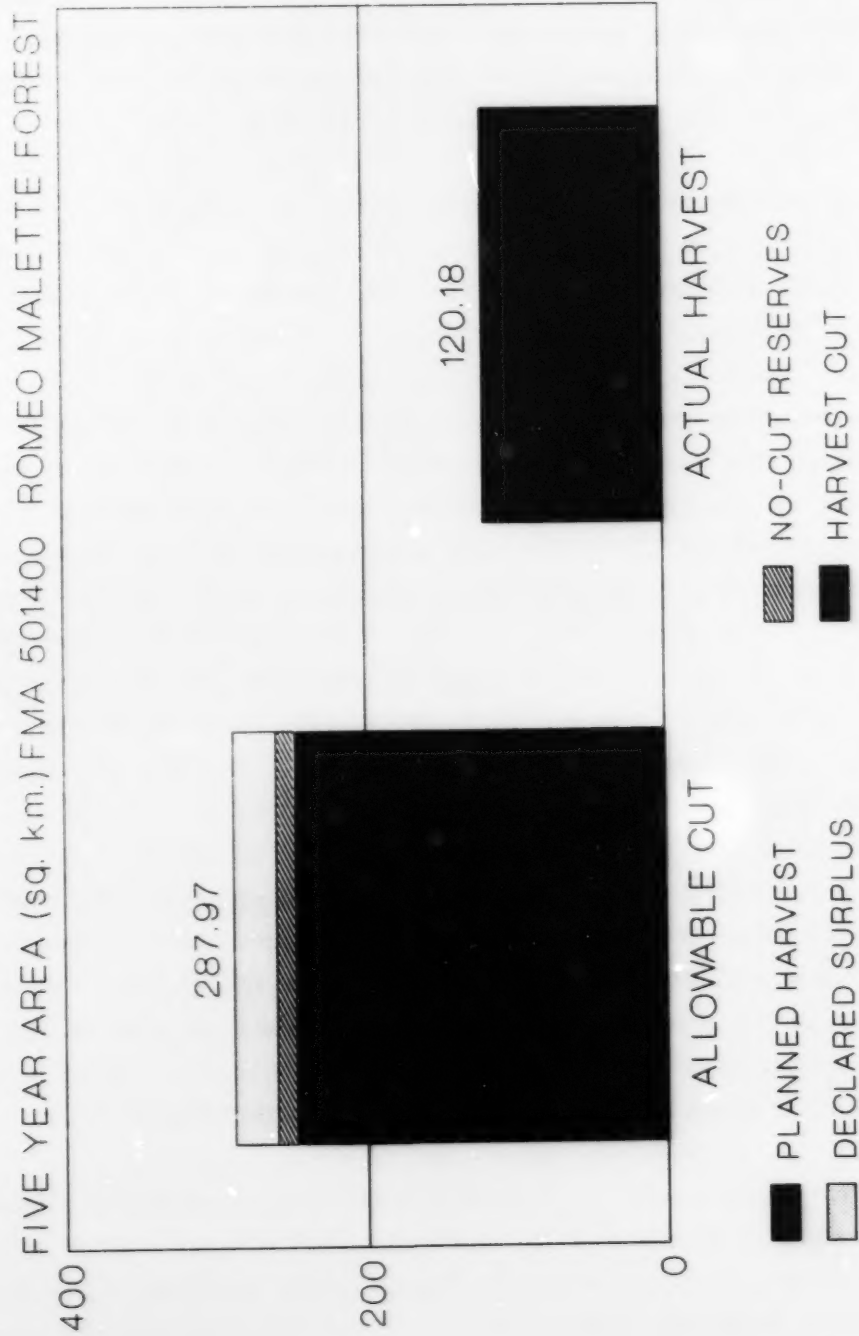
The Company did not meet its harvest obligations in any of the working groups during its first five-year term. The level of undercut was evident by mid-term but no request for variation of the 90% harvest requirement was made to the Minister. Figure 2 shows a comparison of the actual cut for the five-year term with the allowable cut, for all working groups combined.

There are a number of reasons for the Company's failure to utilize its planned level of harvest.

These include:

- a sawmill strike for a four-month period in 1983, coupled with soft lumber markets and the inability to sell all their chips, resulted in the sawmill running

FIGURE 2: COMPARISON OF ALLOWABLE CUT, ALLOCATION, AND HARVEST



at 72% of the planned five-year production,

- the harvesting of poplar was concentrated in very high yield stands which was the major reason for the area undercut of the poplar working group, as volume demand was close to forecast, and
- harvesting was reduced within the agreement area in order for the Company to meet a prior commitment under a third party agreement with Spruce Falls Power and Paper Company Limited on the Gordon Cosens Forest.

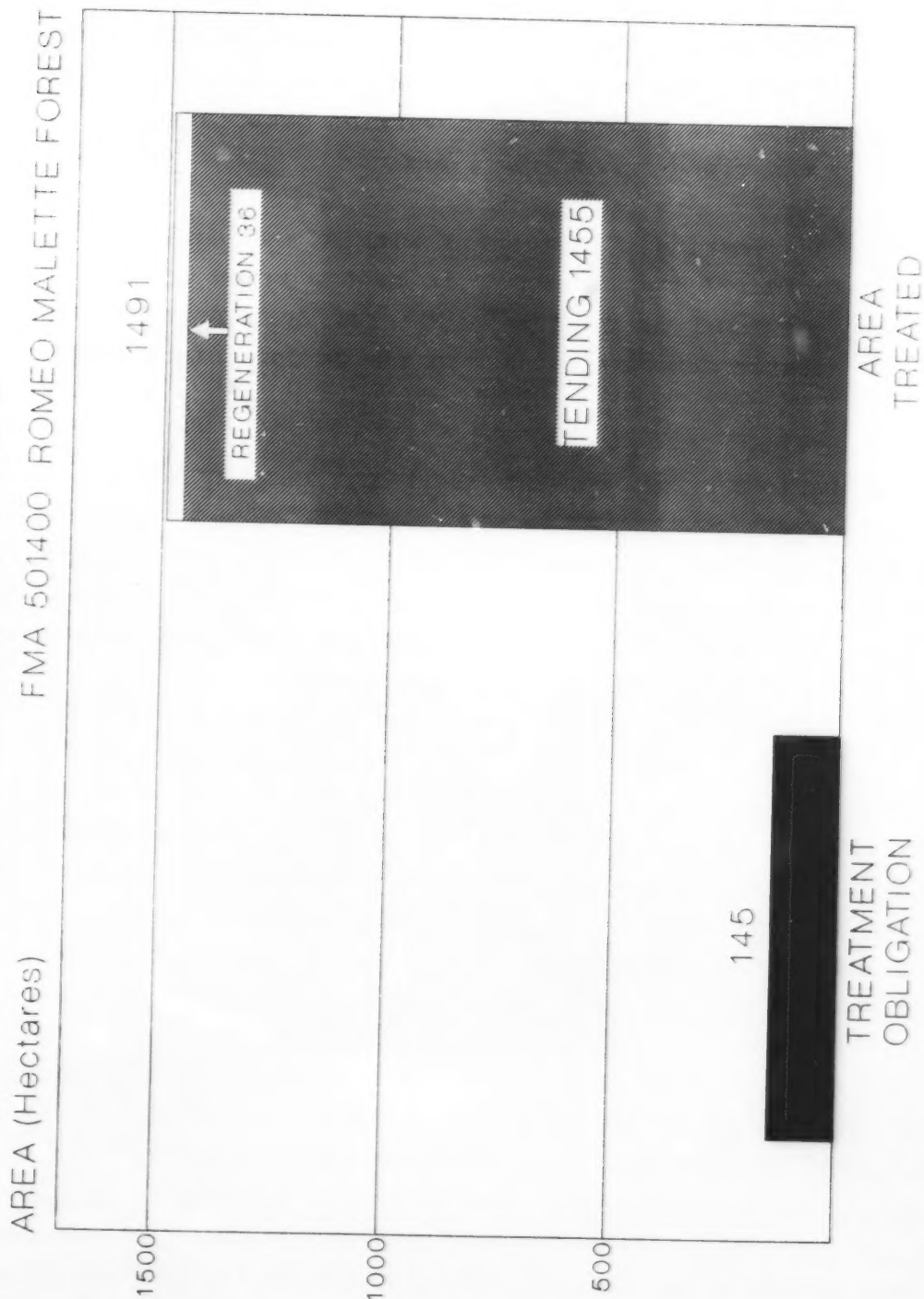
RECOMMENDATION: That in the event the Company should forecast harvest levels during the second five-year term to fall below the 90% level of those stated in the current plan, the Company should take immediate action to request, with reasonable explanation, an undercut variation from the Minister and to amend its management plan with a further surplus declaration.

2.4 N.S.R. OBLIGATIONS

Under provisions of the agreement, the Company has an obligation to reforest N.S.R. lands at the rate of 5% of class 2 and 3 N.S.R. lands annually. This amounts to 145 ha in the five-year term under review and 581 ha for the entire 20-year period of the agreement.

The Company, on its own initiative, elected to accelerate the rate of N.S.R. treatment and has to date reforested 1491 ha or 10 times its obligation. This level of achievement results in part from the crediting of the tending treatment of Ministry plantations not included in the original survey. The Company is to be commended for the initiative it has shown in putting N.S.R. lands back into production as seen by Figure 3.

**FIGURE 3: COMPARISON OF NSR TREATMENT OBLIGATION
AND NSR TREATMENT, 1982-87**



RECOMMENDATION: That the Minister acknowledge the fulfillment of the Company's N.S.R. treatment obligations for the entire period of the 20-year agreement.

2.5 ROAD CONSTRUCTION

Paragraph 31 of the agreement provides for the Minister to pay for the construction or reconstruction of forest access roads on the agreement area. To be eligible for payment, roads must be detailed in an approved annual plan and constructed according to the standards specified in Schedule "E" of the agreement.

On the Romeo Malette Forest, roads are inspected jointly by the Company representative and a Ministry Representative prior to acceptance for final payment. A few kilometres of road were found to be below standard on initial inspection in the early years of the agreement, but as soon as this was pointed out by the Ministry representative, the Company took corrective action. In the last three years, roads have been built to the specified standards.

During the term under review, the Company built fewer roads than projected in the five-year operating plan (Figure 1). This shortfall was the result of non-requirement due to reduced harvest cut, optimistic initial forecasts of road requirements, and allocation of limited funds by the Ministry. When final funding levels were received each year, the Company usually met and, as supplementary funding became available, frequently exceeded planned levels.

A comparison of planning maps and actual road locations revealed very close agreement. One large change in location, for strategy reasons (to complete a loop) had been approved in the annual plan for that year. On two occasions planned primary roads were stopped short and built as secondary roads to avoid crossing

rivers that were popular with recreationists. Several small changes avoided rock outcrops, took advantage of eskers or preserved areas around trappers cabins. In each of these cases, the deviations were approved by the Ministry in a plan amendment.

2.6 COMPANY RECORDS

The committee found that the Company's records concerning the documentation of submission, resubmission, approvals and amendments of its management documents were not kept in a manner that allowed for easy reconciliation with the requirements of the agreement. In most cases the information required was found but it took considerable time and effort to locate some of the information requested. The committee encourages the Company to recognize the importance of documenting its performance of agreement obligations and to improve its correspondence files in this regard.

Silvicultural projects on a designated area are first recorded on mylar maps and these are used to track all subsequent activities. Recalculations of area for one location tallied exactly with invoices and with the annual report but not with the silvicultural record book. This book contains records of all silvicultural projects recorded by project number and accompanied by printed maps from the master mylar. Several minor errors were detected. All information was available, though difficult to analyze. Aspen, an important species for this Company, regenerates naturally following clearcutting and, thus, large areas have been left untreated for natural regeneration. However, the silvicultural records of the Company do not include these areas.

RECOMMENDATION: That the areas for which natural regeneration is deemed adequate according to the ground rules be identified and recorded using the same system as for areas for artificial means.

2.7 ANNUAL REPORTS

Paragraph 38 of the agreement requires the agreement holder to prepare an annual report in accordance with the Forest Management Manual in respect of the operations conducted on the agreement area in the year proceeding.

The committee found that the Company submitted annual reports each year at about the right time in accordance with the manual (documentation of exact dates was not available in either Company or Ministry records). In most cases, communication between the Company and the D.C.R. prevented discrepancies. No written report was made.

RECOMMENDATION: That both the Company and the Ministry take steps to ensure documentation of submission dates for annual reports so that performance of the agreement holder can be evaluated.

2.8 INTEGRATION WITH OTHER FOREST USERS

Section 8 of the ground rules, entitled Withdrawals and Reserves, details how other forest users were to be identified and accommodated during the first five-year term. It was the responsibility of the Ministry to identify these areas and make prescriptions to accommodate other forest users. The Company was to implement the Ministry's prescriptions, so as to protect those other forest values.

The Romeo Malette Forest includes part of the City of Timmins and hence other users are numerous. Commercial tourist operators, cottage owners, mining companies, anglers, hunters, and trappers all use the landbase extensively. The Waferboard Company has learned to be exceptionally sensitive to the needs of these other users.

With so many differing interests some irritations are inevitable, but the Company has gone far beyond the requirements of the agreement in attempting to resolve as many problems as possible. Examples include respecting reserves around cottage areas and around lakes used for tourism, accepting Ministry guidelines concerning modified management areas (M.M.A's) designed to protect fisheries values, changing cutting patterns to favour moose, meeting with mining companies to resolve difficulties and meeting with the local trappers association and with individual trappers to solve problems. The good communication between the Company and local trappers has been beneficial both ways: areas around trappers cabins have been left uncut and in some cases trappers have provided useful advice to the Company.

Fish and wildlife values also received consideration. In one case, where cutters found an active owl nest, the surrounding trees were left untouched. After an instance of a ribboned line being moved by contract cutters, all boundary lines were painted to ensure that M.M.A.'s remain intact. At bridges and culverts, fisheries values were protected by good placement, use of coarse gravel fill and, in one instance, planting with grass. Altogether the Company's accommodation of other users is most commendable.

3. MAINTENANCE OF PRODUCTIVITY

Table 2 shows the maximum allowable depletion (allowable cut) which was calculated for the Romeo Malette Forest at the beginning of the five-year term under review.

It indicates that the level of harvest and other forest depletions was well below the maximum allowed under sustained yield management for all working groups. Seventy-nine percent of the area harvested during the five-year operating period received a regeneration treatment; the remaining area is either intended

Table 2

ROMEO MALETTE FOREST FMA 501400

Comparison of the 1982-1987 Maximum Allowable Depletion, total depletion, harvest and regeneration activities and the 1987-1992 Maximum Allowable Depletion. (Ministry Phase-In operations included.)

Working Group/or Forest Unit	1982-1987 Maximum Allowable Depletion	Total Depletion	Harvest Cut	Regeneration Total	*1987-1992 Maximum Allowable Depletion
Spruce	7,924	3,327	3,327		9,481
Balsam Fir	2,891	133	133		3,086
Jack pine	4,688	2,892	2,892	N/A	4,864
Other conifer	1,351	271	271		1,490
Poplar	7,311	2,625	2,625		6,099
White birch	4,632	2,770	2,770		6,527
Total	28,797	12,018	12,018	9,518	31,547

* M.A.D. based on average-age calculations

for natural regeneration or is fresh cut-over. The area of regeneration assessed as free-to-grow during the term under review was 1821 ha; many areas currently being treated will become free-to-grow in the next five-year period.

The review committee observed a major commitment by the Company to regenerate the Romeo Malette Forest. The Company has been tailoring their forest management treatments to improve growth and regeneration to meet the local conditions and should be complemented for their efforts in this regard.

4. COMPANY CONCERNS

The Company was provided the opportunity to express any concerns that it might have with F.M.A. 501400 or with regard to the Ministry's administration of the agreement. Senior management of Waferboard Corporation, though generally very satisfied with the working of the F.M.A., expressed concerns in the following areas:

- The Company on occasions has accepted planting stock of very questionable quality at the urging of the Ministry with no retreatment exemption for plantation failure. Refusal of planting stock can result in idle planting crews awaiting a replacement shipment as well as the Company not meeting its regeneration obligation if no replacement stock is available. Sub-standard bareroot jack pine planting stock from Ministry nurseries has been the problem. A procedure for accepting sub-standard stock without penalty is required.
- The Company believes that the present F.M.A. arrangement for payment of tending treatments before stands are declared free-to-grow (F.T.G.) should also apply to stands after they achieve F.T.G. status. The current stumpage reduction incentive contained in paragraph 23 of the agreement provides insufficient incentive for tending F.T.G. stands.
- The Company expressed its satisfaction with having the same D.C.R. throughout the five-year term and hoped this arrangement would continue for the next five years.

5. CONCLUSIONS AND RECOMMENDATIONS

The review committee is satisfied that the obligations of the Company under the agreement have been satisfactorily performed by the Company during the five-year term under review and notes that the Company and the Ministry have agreed to a management plan and ground rules for the second five-year term. The committee was impressed with the amount of effort put forth by the Company in its silvicultural program and with the commitment of the Company and its staff towards successful management of the Romeo Malette Forest.

RECOMMENDATION NO.1: That the Minister extend the remaining period of FMA 501400 by a further term of five consecutive years to March 31st, 2007.

RECOMMENDATION NO. 2: That the Company initiate a review of its management planning policies and procedures to ensure that all obligations under the agreement and all requirements of the Timber Management Planning Manual For Crown Land In Ontario especially due dates and data are met.

RECOMMENDATION NO. 3: That the Company and the Ministry jointly review the treatable status of lands cutover during the five-year term for which Table 1 of the ground rules specifies treatment but which have received no treatment or plans for treatment, and that the Company report any area mutually agreed to be non-treatable in the 1988-89 annual report.

RECOMMENDATION NO. 4: That in the event that the Company should forecast harvest levels during the second five-year period to fall below the 90% level of those stated in the current plan, the Company should take immediate action to request, with reasonable explanation, an undercut variation from the Minister and to amend its management plan with a further surplus declaration.

RECOMMENDATION NO. 5: That the Minister acknowledge the fulfillment of the Company's N.S.R. treatment obligations for the entire period of the 20-year agreement.

RECOMMENDATION NO. 6: That the areas for which natural regeneration is deemed adequate according to the ground rules be identified and recorded using the same system as for areas for artificial means.

RECOMMENDATION NO. 7: That both the Company and the Ministry take steps to ensure documentation of submission dates for annual reports so that performance of the agreement holder can be evaluated.